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## FIGURE 438

MWLPLGLLSLCLSPLPILSSPSLKSQACQQLLWTLPSPLVAFRANRTTYVMDVSTNQGSGMEH RNHLCFCDLYDRATSPPLKCSLL

## FIGURE 439

GTTTCTCATAGTTGGCGTCTTCTAAAGGAAAAACACTAAAATGAGGAACTCAGCGGACCGGGAGCGACGCAGCTT GAGGGAAGCATCCCTAGCTGTTGGCGCAGAGGGGCGAGGCTGAAGCCGAGTGGCCCGAGGTGTCTGAGGGGCTGG GGCAAAGGTGAAAGAGTTTCAGAACAAGCTTCCTGGAACCCATGACCCATGAAGTCTTGTCGACATTTATACCGT CTGAGGGTAGCAGCTCGAAACTAGAAGAAGTGGAGTGTTGCCAGGGACGGCAGTATCTCTTTGTGTGACCCTGGC GGCCTATGGGACGTTGGCTTCAGACCTTTGTGATACACCATGCTGCGTGGGACGATGACGCGTGGAGAGGAATG AGGCCTGAGGTCACACTGGCTTGCCTCCTCCTAGCCACAGCAGGCTGCTTTGCTGACTTGAACGAGGTCCCTCAG GTCACCGTCCAGCCTGCGTCCACCGTCCAGAAGCCCGGAGGCACTGTGATCTTGGGCTGCGTGGTGGAACCTCCA AGGATGAATGTAACCTGGCGCCTGAATGGAAAGGAGCTGAATGGCTCGGATGATGCTCTGGGTGTCCTCATCACC CACGGGACCCTCGTCATCACTGCCCTTAACAACCACACTGTGGGACGGTACCAGTGTGTGGCCCGGATGCCTGCG GGGGCTGTGGCCAGCGTGCCAGCCACTGTGACACTAGCCAATCTCCAGGACTTCAAGTTAGATGTGCAGCACGTG TACAGCGTCAAACAAGAGTGGCTGGAGGCCTCCAGAGGTAACTACCTGATCATGCCCTCAGGGAACCTCCAGATT GTGAATGCCAGCCAGGAGGACGAGGGCATGTACAAGTGTGCAGCCTACAACCCAGTGACCCAGGAAGTGAAAACC TCCGGCTCCAGCGACAGGCTACGTGTGCGCCGCTCCACCGCTGAGGCTGCCCGCATCATCTACCCCCCAGAGGCC CAAACCATCATCGTCACCAAAGGCCAGAGTCTCATTCTGGAGTGTGTGGCCAGTGGAATCCCACCCCCACGGGTC ACCTGGGCCAAGGATGGGTCCAGTGTCACCGGCTACAACAAGACGCGCTTCCTGCTGAGCAACCTCCTCATCGAC ACCACCAGCGAGGAGGACTCAGGCACCTACCGCTGCATGGCCGACAATGGGGTTGGGCAGCCCGGGGCAGCGGTC ATCCTCTACAATGTCCAGGTGTTTGAACCCCCTGAGGTCACCATGGAGCTATCCCAGCTGGTCATCCCCTGGGGC CTCATCTCCAGCCAGCGCCTCCGGCTCTCCCGCAGGGCCCTGCGCGTGCTCAGCATGGGGCCTGAGGACGAAGGC GTCTACCAGTGCATGGCCGAGAACGAGGTTGGGAGCGCCCATGCCGTAGTCCAGCTGCGGACCTCCAGGCCAAGC ATAACCCCAAGGCTATGGCAGGATGCTGAGCTGGCTACTGGCACACCTCCTGTATCACCCTCCAAACTCGGCAAC CCTGAGCAGATGCTGAGGGGGCAACCGGCGCTCCCCAGACCCCCAACGTCAGTGGGGCCTGCTTCCCCGAAGTGT TCATATGAACTGGTGTGGCGGCCTCGGCATGAGGGCAGTGGCCGGGCGCCCAATCCTCTACTATGTGGTGAAACAC CGCAAGCAGGTCACAAATTCCTCTGACGATTGGACCATCTCTGGCATTCCAGCCAACCAGCACCGCCTGACCCTC ACCAGACTTGACCCCGGGAGCTTGTATGAAGTGGAGATGGCAGCTTACAACTGTGCGGGAGAGGGCCAGACAGCC ATGGTCACCTTCCGAACTGGACGGCGGCCCAAACCCGAGATCATGGCCAGCAAAGAGCAGCAGATCCAGAGAGAC GACCCTGGAGCCAGTCCCCAGAGCAGCCAGCCAGACCACGGCCGCCTCTCCCCCCAGAAGCTCCCGACAGG CCCACCATCTCCACGGCCTCCGAGACCTCAGTGTACGTGACCTGGATTCCCCGTGGGAATGGTGGGTTCCCAATC CAGTCCTTCCGTGTGGAGTACAAGAAGCTAAAGAAAGTGGGAGACTGGATTCTGGCCACCAGCGCCATCCCCCCA TCGCGGCTGTCCGTGGAGATCACGGGCCTAGAGAAAGGCACCTCCTACAAGTTTCGAGTCCGGGCTCTGAACATG CTGGGGGAGAGCGAGCCCCAGCGCCCCCTCTCGGCCCTACGTGGTGTCGGGCTACAGCGGTCGCGTGTACGAGAGG CCCGTGGCAGGTCCTTATATCACCTTCACGGATGCGGTCAATGAGACCACCATCATGCTCAAGTGGATGTACATC GACTACAAGAAGGATATGGTGGAAGGGGACAAGTACTGGCACTCCATCAGCCACCTGCAGCCAGAGACCTCCTAC GACATTAAGATGCAGTGCTTCAATGAAGGAGGGGAGAGCGAGTTCAGCAACGTGATGATCTGTGAGACCAAAGCT CGGAAGTCTTCTGGCCAGCCTGGTCGACTGCCACCCCCAACTCTGGCCCCACCACAGCCGCCCCTTCCTGAAACC CTGGGCTCCATCGTTCTCATCGTCACCTTCATCCCCTTCTGCTTGTGGAGGGCCTGGTCTAAGCAAAAACAT ACAACAGACCTGGGTTTTCCTCGAAGTGCCCTTCCACCCTCCTGCCCGTATACTATGGTGCCATTGGGAGGACTC CCAGGCCACCAGGCCAGTGGACAGCCCTACCTCAGTGGCATCAGTGGACGGGCCTGTGCTAATGGGATCCACATG AATAGGGGCTGCCCCTCGGCTGCAGTGGGCTACCCGGGCATGAAGCCCCAGCAGCACTGCCCAGGCGAGCTTCAG CAGCAGAGTGACACCAGCAGCCTGCTGAGGCAGACCCATCTTGGCAATGGATATGACCCCCAAAGTCACCAGATC CTGCAGCCCCATCACGACTGCTGCCAACGCCAGGAGCAGCCTGCTGCTGTGGGCCAGTCAGGGGTGAGGAGAGCC CCCGACAGTCCTGTCCTGGAAGCAGTGTGGGACCCTCCATTTCACTCAGGGCCCCCATGCTGCTTGGGCCTTGTG GCCTACGTAGGACAGGAACCTGGAATGCAGCTCTCCCCGGGGCCACTGGTGCGTGTGTCTTTTGAAACACCACCT TATGTTTTATAATTCTGGAGAGACATAAGGAGTCCTACCCGTTGAGGTTGGAGAGGGGAAAATAAAGAAGCTGCCA CCTAACAGGAGTCACCCAGGAAAGCACCGCACAGGCTGGCGCGGGACAGACTCCTAACCTGGGGCCTCTGCAGTG TGAGGGAACAGCAAGGGGCACGGTATCACAGCCTGGAGACACCCACACAGATGGCTGGATCCGGTGCTACGGGAA ACATTTTCCTAAGATGCCCATGAGAACAGACCAAGATGTGTACAGCACTATGAGCATTAAAAAACCTTCCAGAAT 

## FIGURE 440

MLRGTMTAWRGMRPEVTLACLLLATAGCFADLNEVPQVTVQPASTVQKPGGTVILGCVVEPPR MNVTWRLNGKELNGSDDALGVLITHGTLVITALNNHTVGRYQCVARMPAGAVASVPATVTLAN LQDFKLDVQHVIEVDEGNTAVIACHLPESHPKAQVRYSVKQEWLEASRGNYLIMPSGNLQIVN ASQEDEGMYKCAAYNPVTQEVKTSGSSDRLRVRRSTAEAARIIYPPEAQTIIVTKGQSLILEC VASGIPPPRVTWAKDGSSVTGYNKTRFLLSNLLIDTTSEEDSGTYRCMADNGVGQPGAAVILY NVQVFEPPEVTMELSQLVIPWGQSAKLTCEVRGNPPPSVLWLRNAVPLISSQRLRLSRRALRV LSMGPEDEGVYQCMAENEVGSAHAVVQLRTSRPSITPRLWQDAELATGTPPVSPSKLGNPEQM LRGQPALPRPPTSVGPASPKCPGEKGQGAPAEAPIILSSPRTSKTDSYELVWRPRHEGSGRAP ILYYVVKHRKQVTNSSDDWTISGIPANQHRLTLTRLDPGSLYEVEMAAYNCAGEGQTAMVTFR TGRRPKPEIMASKEQQIQRDDPGASPQSSSQPDHGRLSPPEAPDRPTISTASETSVYVTWIPR GNGGFPIQSFRVEYKKLKKVGDWILATSAIPPSRLSVEITGLEKGTSYKFRVRALNMLGESEP SAPSRPYVVSGYSGRVYERPVAGPYITFTDAVNETTIMLKWMYIPASNNNTPIHGFYIYYRPT DSDNDSDYKKDMVEGDKYWHSISHLQPETSYDIKMQCFNEGGESEFSNVMICETKARKSSGQP GRLPPPTLAPPQPPLPETIERPVGTGAMVARSSDLPYLIVGVVLGSIVLIIVTFIPFCLWRAW SKOKHTTDLGFPRSALPPSCPYTMVPLGGLPGHOASGOPYLSGISGRACANGIHMNRGCPSAA VGYPGMKPQQHCPGELQQQSDTSSLLRQTHLGNGYDPQSHQITRGPKSSPDEGSFLYTLPDDS THQLLQPHHDCCQRQEQPAAVGQSGVRRAPDSPVLEAVWDPPFHSGPPCCLGLVPVEEVDSPD SCQVSGGDWCPQHPVGAYVGQEPGMQLSPGPLVRVSFETPPLTI

#### Signal peptide:

amino acids 1-30

#### Transmembrane domain:

amino acids 16-30 (type II), 854-879

## FIGURE 441

GAGAGAATAGCTACAGATTCTCCATCCTCAGTCTTTGCAAGGCGACAGCTGTGCCAGCCGGGC TCTGGCAGGCTCCTGGCAGCATGGCAGTGAAGCTTGGGACCCTCCTGCTGGCCCTTGCCCTGG GCCTGGCCCAGCCAGCCTCTGCCCGCCGGAAGCTGCTGGTGTTTCTGCTGGATGGTTTTCGCT CAGACTACATCAGTGATGAGGCGCTGGAGTCATTGCCTGGTTTCAAAGAGATTGTGAGCAGGG GAGTAAAAGTGGATTACTTGACTCCAGACTTCCCTAGTCTCTCGTATCCCAATTATTATACCC TAATGACTGGCCGCCATTGTGAAGTCCATCAGATGATCGGGAACTACATGTGGGACCCCACCA CCAACAAGTCCTTTGACATTGGCGTCAACAAAGACAGCCTAATGCCTCTCTGGTGGAATGGAT GCTGTGAGGTTGAGATTCTGGGTGTCAGACCCACCTACTGCCTAGAATATAAAAATGTCCCAA CGGATATCAATTTTGCCAATGCAGTCAGCGATGCTCTTGACTCCTTCAAGAGTGGCCGGGCCG ACCTGGCAGCCATATACCATGAGCGCATTGACGTGGAAGGCCACCACTACGGGCCTGCATCTC CGCAGAGGAAAGATGCCCTCAAGGCTGTAGACACTGTCCTGAAGTACATGACCAAGTGGATCC AGGAGCGGGGCCTGCAGGACCGCCTGAACGTCATTATTTTCTCGGATCACGGAATGACCGACA TTTTCTGGATGGACAAAGTGATTGAGCTGAATAAGTACATCAGCCTGAATGACCTGCAGCAAG TGAAGGACCGCGGCCTGTTGTGAGCCTTTGGCCGGCCCCTGGGAAACACTCTGAGATATATA ATTACAAGAAAGGAAAGTTTGTCTCTCCTTTGACTTTAGTGGCTGATGAAGGCTGGTTCATAA CTGAGAATCGAGAGATGCTTCCGTTTTGGATGAACAGCACCGGCAGGCGGGAAGGTTGGCAGC GTGGATGGCACGGCTACGACAACGAGCTCATGGACATGCGGGGCATCTTCCTGGCCTTCGGAC CTGATTTCAAATCCAACTTCAGAGCTGCTCCTATCAGGTCGGTGGACGTCTACAATGTCATGT GCAATGTGGTGGGCATCACCCCGCTGCCCAACAACGGATCCTGGTCCAGGGTGATGTGCATGC TGAAGGCCCGCCCGCCTGCCCCGCCTGTCTGGCCCAGCCACTGTGCCCTGGCACTGATTC TGGGCCTCCAAAGCCAGATGATTTTCATTTTATGTGTGAATAATAGCTTCATTAACACAATCA AGACCATGCACATTGTAAATACATTATTCTTGGATAATTCTATACATAAAAGTTCCTACTTGT AAAT

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## FIGURE 442

MAVKLGTLLLALALGLAQPASARRKLLVFLLDGFRSDYISDEALESLPGFKEIVSRGVKVDYL
TPDFPSLSYPNYYTLMTGRHCEVHQMIGNYMWDPTTNKSFDIGVNKDSLMPLWWNGSEPLWVT
LTKAKRKVYMYYWPGCEVEILGVRPTYCLEYKNVPTDINFANAVSDALDSFKSGRADLAAIYH
ERIDVEGHHYGPASPQRKDALKAVDTVLKYMTKWIQERGLQDRLNVIIFSDHGMTDIFWMDKV
IELNKYISLNDLQQVKDRGPVVSLWPAPGKHSEIYNKLSTVEHMTVYEKEAIPSRFYYKKGKF
VSPLTLVADEGWFITENREMLPFWMNSTGRREGWQRGWHGYDNELMDMRGIFLAFGPDFKSNF
RAAPIRSVDVYNVMCNVVGITPLPNNGSWSRVMCMLKGRAGTAPPVWPSHCALALILLFLLA

Important features of the protein: Signal peptide:

amino acids 1-22

N-glycosylation sites. amino acids 100-104, 118-122, 341-345, 404-408

N-myristoylation sites. amino acids 148-154, 365-371

Amidation site.
amino acids 343-347

## FIGURE 443

AGTGACTGCAGCCTTCCTAGATCCCCTCCACTCGGTTTCTCTCTTTTGCAGGAGCACCGGCAGC ACCAGTGTGTGAGGGGGGCAGCAGCCGTCCTAGCCAGTTCCTTGATCCTGCCAGACCACCCA GCCCCCGGCACAGAGCTGCTCCACAGGCACCATCATCAGGCATCATGCTGCTATTCACAGCCATCCT GGCCTTCAGCCTAGCTCAGAGCTTTGGGGCTGTCTGTAAGGAGCCACAGGAGGAGGTGGTTCC TGGCGGGGCCCCAGAAGAGGGATCCAGATCTCTACCAGCTGCTCCAGAGACTCTTCAAAAG CCACTCATCTCTGGAGGGATTGCTCAAAGCCCTGAGCCAGGCTAGCACAGATCCTAAGGAATC AACATCTCCCGAGAAACGTGACATGCATGACTTCTTTGTGGGGACTTATGGGCAAGAGAGGGCGT CCAGCCAGAGGGAAAGACAGGACCTTTCTTACCTTCAGTGAGGGTTCCTCGGCCCCTTCATCC CAATCAGCTTGGATCCACAGGAAAGTCTTCCCTGGGAACAGAGGAGCAGAGACCTTTA**TAA**GA CTCTCCTACGGATGTGAATCAAGAGAACGTCCCCAGCTTTGGCATCCTCAAGTATCCCCCGAG AGCAGAATAGGTACTCCACTTCCGGACTCCTGGACTGCATTAGGAAGACCTCTTTCCCTGTCC CAATCCCCAGGTGCGCACGCTCCTGTTACCCTTTCTCTTCTCTGTTGTAACATTCTTGTG CTTTGACTCCTTCTCCCATCTTTTCTACCTGACCCTGGTGTGGAAACTGCATAGTGAATATCCC CAACCCCAATGGGCATTGACTGTAGAATACCCTAGAGTTCCTGTAGTGTCCTACATTAAAAAT AAAAAAAAAAAAAAAAAAAAAA

## FIGURE 444

MRIMLLFTAILAFSLAQSFGAVCKEPQEEVVPGGGRSKRDPDLYQLLQRLFKSHSSLEGLLKA LSQASTDPKESTSPEKRDMHDFFVGLMGKRSVQPEGKTGPFLPSVRVPRPLHPNQLGSTGKSS LGTEEQRPL

Important features:
Signal peptide:
amino acids 1-18

Tyrosine kinase phosphorylation site. amino acids 36-45

N-myristoylation site. amino acids 33-39, 59-65

Amidation site.
amino acids 90-94

Leucine zipper pattern. amino acids 43-65

Tachykinin family signature. amino acids 86-92

## FIGURE 445

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## FIGURE 446

MIHLGHILFLLLLPVAAAQTTPGERSSLPAFYPGTSGSCSGCGSLSLPLLAGLVAADAVASLLIVGAVFLCARPR RSPAQDGKVYINMPGRG

Signal peptide:

Amino acids 1-18

transmembrane domain:

Amino acids 51-70

Glycosaminoglycan attachment site: Amino acids 40-44

N-myristoylation sites:

Amino acids 34-40;37-43;52-58

Prokaryotic membrane lipoprotein lipid attachment site: Amino acids 29-40

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## FIGURE 447

GCCAGGTGTGCAGGCCGCTCCAAGCCCAGCCTGCCCGCTGCCGCCACCATGACGCTCCTCCC GCACCCCCACAGTCACGGTACCCCACACTGCTACTCGGCTGAGGAACTGCCCCTCGGCCAGGC CCCCCACACCTGCTGGCTCGAGGTGCCAAGTGGGGGCAGGCTTTGCCTGTAGCCCTGGTGTC CAGCCTGGAGGCAGCAAGCCACAGGGGGGAGGCACGAGAGGCCCTCAGCTACGACCCAGTGCCC ATACCGTGTGGACACGGATGAGGACCGCTATCCACAGAAGCTGGCCTTCGCCGAGTGCCTGTG CAGAGGCTGTATCGATGCACGGACGGCCCGCGAGACAGCTGCGCTCAACTCCGTGCGCTGCT CCAGAGCCTGCTGCTGCTGCCGCCGCCCTGCTCCCGCGACGGCTCGGGGCTCCCCACACC TGGGGCCTTTGCCTTCCACACCGAGTTCATCCACGTCCCCGTCGGCTGCACCTGCGTGCTGCC CCGTTCAGTG<u>TGA</u>CCGCCGAGGCCGTGGGGCCCCTAGACTGGACACGTGTGCTCCCCAGAGGG CACCCCTATTTATGTGTATTTATTGTTATTTATATGCCTCCCCCAACACTACCCTTGGGGTC TGGGCATTCCCCGTGTCTGGAGGACAGCCCCCCACTGTTCTCCTCATCTCCAGCCTCAGTAGT TGGGGGTAGAAGGAGCTCAGCACCTCTTCCAGCCCTTAAAGCTGCAGAAAAGGTGTCACACGG CTGCCTGTACCTTGGCTCCCTGTCCTGCTCCCGGCTTCCCTTACCCTATCACTGGCCTCAGGC CCCGCAGGCTGCCTCTTCCCAACCTCCTTGGAAGTACCCCTGTTTCTTAAACAATTATTTAAG TGTACGTGTATTATTAAACTGATGAACACATCCCCAAAA

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## FIGURE 448

MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQALP VALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQKLAF AECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEFIHVPVGC TCVLPRSV

Important features: Signal peptide: amino acids 1-18

Tyrosine kinase phosphorylation site. amino acids 112-121

N-myristoylation sites. amino acids 32-38, 55-61, 133-139

Leucine zipper pattern. amino acids 3-25

Homologous region to IL-17. amino acids 99-195

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## FIGURE 449

TGCAGAGCTTGTGGAGGCC<u>ATG</u>GGGCGCGTCGTCGCGGAGCTCGTCTCCTCGCTGCTGGGGTT GTGGCTGTTGCTGCAGCTGCGGATGCCCCGAGGGCGCCGAGCTGCGTGCTCCGCCAGATAA AATCGCGATTATTGGAGCCGGAATTGGTGGCACTTCAGCAGCCTATTACCTGCGGCAGAAATT TGGGAAAGATGTGAAGATAGACCTGTTTGAAAGAGAGAGGTCGGGGGCCGCCTGGCTACCAT GAAACGTTTTGTCAAAGACCTGGGTCTCTCTGCTGTTCAGGCCTCTGGTGGCCTACTGGGGAT ATATAATGGAGAGACTCTGGTATTTGAGGAGGAGCAACTGGTTCATAATTAACGTGATTAAATT AGTTTGGCGCTATGGATTTCAATCCCTCCGTATGCACATGTGGGTAGAGGACGTGTTAGACAA GTTCATGAGGATCTACCGCTACCAGTCTCATGACTATGCCTTCAGTAGTGTCGAAAAATTACT TCATGCTCTAGGAGGAGATGACTTCCTTGGAATGCTTAATCGAACACTTCTTGAAACCTTGCA AAAGGCCGGCTTTTCTGAGAAGTTCCTCAATGAAATGATTGCTCCTGTTATGAGGGTCAATTA CCTTTGGGCAGTAGAAGGTGGCAATAAACTTGTTTGCTCAGGGCTTCTGCAGGCATCCAAAAG CAATCTTATATCTGGCTCAGTAATGTACATCGAGGAGAAAACAAAGACCAAGTACACAGGAAA TCCAACAAAGATGTATGAAGTGGTCTACCAAATTGGAACTGAGACTCGTTCAGACTTCTATGA CATCGTCTTGGTGGCCACTCCGTTGAATCGAAAAATGTCGAATATTACTTTTCTCAACTTTGA TCCTCCAATTGAGGAATTCCATCAATATTATCAACATATAGTGACAACTTTAGTTAAGGGGGA ATTGAATACATCTATCTTTAGCTCTAGACCCATAGATAAATTTGGCCTTAATACAGTTTTAAC CACTGATAATTCAGATTTGTTCATTAACAGTATTGGGATTGTGCCCTCTGTGAGAGAAAAGGA AGATCCTGAGCCATCAACAGATGGAACATATGTTTGGAAGATCTTTTCCCAAGAAACTCTTAC TAAAGCACAAATTTTAAAGCTCTTTCTGTCCTATGATTATGCTGTGAAGAAGCCATGGCTTGC ATATCCTCACTATAAGCCCCCGGAGAAATGCCCCTCTATCATTCTCCATGATCGACTTTATTA CCTCAATGGCATAGAGTGTGCAGCAAGTGCCATGGAGATGAGTGCCATTGCAGCCCACAACGC TGAGAAACTTAAAACTGAACTA**TGA**AGTGACACACTCCTTTTTTCCCCTCCTAGTTCCAAATGA CTATCAGTGGCAAAAAAGAACAAAATCTGAGCAGAGATGATTTTGAACCAGATATTTTGCCAT 

## FIGURE 450

</usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA62880
<subunit 1 of 1, 505 aa, 1 stop
<MW: 56640, pI: 6.10, NX(S/T): 4</pre>

MGRVVAELVSSLLGLWLLLCSCGCPEGAELRAPPDKIAIIGAGIGGTSAAYYLRQKFGKDVKI
DLFEREEVGGRLATMMVQGQEYEAGGSVIHPLNLHMKRFVKDLGLSAVQASGGLLGIYNGETL
VFEESNWFIINVIKLVWRYGFQSLRMHMWVEDVLDKFMRIYRYQSHDYAFSSVEKLLHALGGD
DFLGMLNRTLLETLQKAGFSEKFLNEMIAPVMRVNYGQSTDINAFVGAVSLSCSDSGLWAVEG
GNKLVCSGLLQASKSNLISGSVMYIEEKTKTKYTGNPTKMYEVVYQIGTETRSDFYDIVLVAT
PLNRKMSNITFLNFDPPIEEFHQYYQHIVTTLVKGELNTSIFSSRPIDKFGLNTVLTTDNSDL
FINSIGIVPSVREKEDPEPSTDGTYVWKIFSQETLTKAQILKLFLSYDYAVKKPWLAYPHYKP
PEKCPSIILHDRLYYLNGIECAASAMEMSAIAAHNAALLAYHRWNGHTDMIDQDGLYEKLKTEL

#### Important features:

Signal peptide:

amino acids 1-23

#### N-glycosylation sites.

amino acids 196-200, 323-327, 353-357

## Tyrosine kinase phosphorylation site.

amino acids 291-298

#### N-myristoylation sites.

amino acids 23-29, 41-47, 43-49, 45-51, 46-52, 72-78, 115-121, 119-125, 260-266, 384-390, 459-465

Prokaryotic membrane lipoprotein lipid attachment site. amino acids 12-23, 232-243

## FIGURE 451

CAACCATGCAAGGACAGGCAGGAGAAGAGAGACCTGCAAAGACATATTTTGTTCCAAAATGG CATCTTACCTTTATGGAGTACTCTTTGCTGTTGGCCTCTGTGCTCCAATCTACTGTGTCCC CGGCCAATGCCCCCAGTGCATACCCCCGCCCTTCCTCCACAAAGAGCACCCCTGCCTCACAGG TGTATTCCCTCAACACCGACTTTGCCTTCCGCCTATACCGCAGGCTGGTTTTGGAGACCCCGA GTCAGAACATCTTCTCCCCTGTGAGTGTCTCCACTTCCCTGGCCATGCTCTCCCTTGGGG TGACCTTGAAGATGGGAAGTGCCCTCTTCGTCAAGAAGGAGCTGCAGCTGCAGGCAAATTTCT TGGGCAATGTCAAGAGCTGTATGAAGCAGAAGTCTTTTCTACAGATTTCTCCAACCCCTCCA TTGCCCAGGCGAGGATCAACAGCCATGTGAAAAAGAAGACCCAAGGGAAGGTTGTAGACATAA TCCAAGGCCTTGACCTTCTGACGGCCATGGTTCTGGTGAATCACATTTTCTTTAAAGCCAAGT GGGAGAAGCCCTTTCACCTTGAATATACAAGAAAGAACTTCCCATTCCTGGTGGGCGAGCAGG TCACTGTGCAAGTCCCCATGATGCACCAGAAAGAGCAGTTCGCTTTTGGGGTGGATACAGAGC TGAACTGCTTTGTGCTGCAGATGGATTACAAGGGAGATGCCGTGGCCTTCTTTGTCCTCCCTA GCAAGGCCAAGATGAGGCCAACTGGAACAGGCCTTGTCAGCCAGAACACTGATAAAGTGGAGCC ACTCACTCCAGAAAAGGTGGATAGAGGTGTTCATCCCCAGATTTTCCATTTCTGCCTCCTACA ATCTGGAAACCATCCTCCCGAAGATGGGCATCCAAAATGCCTTTGACAAAATGCTGATTTTT CTGGAATTGCAAAGAGAGACTCCCTGCAGGTTTCTAAAGCAACCCACAAGGCTGTGCTGGATG TCAGTGAAGAGGGCACTGAGGCCACAGCAGCTACCACCAAGTTCATAGTCCGATCGAAGG ATGGTCCCTCTTACTTCACTGTCTCCTTCAATAGGACCTTCCTGATGATGATTACAAATAAAG CCACAGACGGTATTCTCTTTCTAGGGAAAGTGGAAAATCCCACTAAATCCTAGGGAAATG GCCTGTTAACTGATGGCACATTGCTAATGCACAAGAAATAACAAACCACATCCCTCTTTCTGT TCTGAGGGTGCATTTGACCCCAGTGGAGCTGGATTCGCTGGCAGGGATGCCACTTCCAAGGCT CCCTTTTCCACAAATTCTCCCAGGTAACTAGCTTCATGGGATGTTGCTGGGTTACCATATTTC CATTCCTTGGGGCTCCCAGGAATGGAAATACGCCAACCCAGGTTAGGCACCTCTATTGCAGAA 

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## FIGURE 452

MASYLYGVLFAVGLCAPIYCVSPANAPSAYPRPSSTKSTPASQVYSLNTDFAFRLYRRLVLET PSQNIFFSPVSVSTSLAMLSLGAHSVTKTQILQGLGFNLTHTPESAIHQGFQHLVHSLTVPSK DLTLKMGSALFVKKELQLQANFLGNVKRLYEAEVFSTDFSNPSIAQARINSHVKKKTQGKVVD IIQGLDLLTAMVLVNHIFFKAKWEKPFHLEYTRKNFPFLVGEQVTVQVPMMHQKEQFAFGVDT ELNCFVLQMDYKGDAVAFFVLPSKGKMRQLEQALSARTLIKWSHSLQKRWIEVFIPRFSISAS YNLETILPKMGIQNAFDKNADFSGIAKRDSLQVSKATHKAVLDVSEEGTEATAATTTKFIVRS KDGPSYFTVSFNRTFLMMITNKATDGILFLGKVENPTKS

.

Signal peptide: amino acids 1-20

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## FIGURE 453

CTCCGGGTCCCCAGGGGCTGCCCCGGCCGGCCTGGCAAGGGGGGACGAGTCAGTGGACACTCCAGGAAGAGCGGC CCCGCGGGGGGCGATGACCGTGCGCTGACCCTGACTCCAGGTCCGGAGGCGGGGGCCCCCGGGGCCACTCG GGGGCGGACCGCGGGGGGGCGCCCCGTGAGTCCGGCCGAGCCACCTGAGCCCGAGCCGCGGGACACCGTC GCTCCTGCTCTCCGAATGCTGCGCACCGCGATGGGCCTGAGGAGCTGGCTCGCCGCCCCATGGGGCCGCCTGCCG CCCCGGATCAGCCTGCCTCTGGGCTCTGAAGAGCGGCCATTCCTCAGATTCGAAGCTGAACACCTCCAACTAC ACAGCCCTTCTGCTGAGCAGGGATGGCAGGACCCTGTACGTGGGTGCTCGAGAGGCCCCTCTTTGCACTCAGTAGC AACCTCAGCTTCCTGCCAGGCGGGGGTACCAGGAGCTGCTTTGGGGTGCAGACGCAGAGAAGAACAGCAGTGC AGCTTCAAGGGCAAGGACCCACAGCGCGACTGTCAAAACTACATCAAGATCCTCCTGCCGCTCAGCGGCAGTCAC CTGTTCACCTGTGGCACAGCAGCCTTCAGCCCCATGTGTACCTACATCAACATGGAGAACTTCACCCTGGCAAGG GACGAGAAGGGGAATGTCCTCCTGGAAGATGGCAAGGGCCGTTGTCCCTTCGACCCGAATTTCAAGTCCACTGCC CTGGTGGTTGATGGCGAGCTCTACACTGGAACAGTCAGCAGCTTCCAAGGGAATGACCCGGCCATCTCGCGGAGC CAAAGCCTTCGCCCCACCAAGACCGAGAGCTCCCTCAACTGGCTGCAAGACCCAGCTTTTGTGGCCTCAGCCTAC ATTCCTGAGAGCCTGGGCAGCTTGCAAGGCGATGATGACAAGATCTACTTTTTCTTCAGCGAGACTGGCCAGGAA TTTGAGTTCTTTGAGAACACCATTGTGTCCCGCATTGCCCGCATCTGCAAGGGCGATGAGGGTGGAGAGCGGGTG CTACAGCAGCGCTGGACCTCCTTCCTCAAGGCCCAGCTGCTGTGCTCACGGCCCGACGATGGCTTCCCCTTCAAC GTGCTGCAGGATGTCTTCACGCTGAGCCCCCAGCCCCCAGGACTGGCGTGACACCCTTTTCTATGGGGTCTTCACT TCCCAGTGGCACAGGGGAACTACAGAAGGCTCTGCCGTCTGTGTCTTCACAATGAAGGATGTGCAGAGAGTCTTC CCTGGAGCGTGCATCACCAACAGTGCCCGGGAAAGGAAGATCAACTCATCCCTGCAGCTCCCAGACCGCGTGCTG AACTTCCTCAAGGACCACTTCCTGATGGACGGGCAGGTCCGAAGCCGCATGCTGCTGCTGCAGCCCCAGGCTCGC TACCAGCGCGTGGCTGTACACCGCGTCCCTGGCCTGCACCACACCTACGATGTCCTCTTCCTGGGCACTGGTGAC GGCCGGCTCCACAAGGCAGTGAGCGTGGGCCCCCGGGTGCACATCATTGAGGAGCTGCAGATCTTCTCATCGGGA CAGCCCGTGCAGAATCTGCTCCTGGACACCCACAGGGGGCTGCTGTATGCGGCCTCACACTCGGGCGTAGTCCAG GTGCCCATGGCCAACTGCAGCCTGTACCGGAGCTGTGGGGACTGCCTCCTCGCCCGGGACCCCTACTGTGCTTGG AGCGGCTCCAGCTGCAAGCACGTCAGCCTCTACCAGCCTCAGCTGGCCACCAGGCCGTGGATCCAGGACATCGAG GGAGCCAGCGCCAAGGACCTTTGCAGCGCGTCTTCGGTTGTGTCCCCGTCTTTTGTACCAACAGGGGAGAAGCCA TGTGAGCAAGTCCAGTTCCAGCCCAACACAGTGAACACTTTGGCCTGCCCGCTCCTCTCCAACCTGGCGACCCGA CTCTGGCTACGCAACGGGGCCCCCGTCAATGCCTCGGCCTCCTGCCACGTGCTACCCACTGGGGACCTGCTG GTGGGCACCCAACAGCTGGGGGAGTTCCAGTGCTGGTCACTAGAGGAGGGCTTCCAGCAGCTGGTAGCCAGCTAC TGCCCAGAGGTGGTGGAGGACGGGGTGGCAGACCAAACAGATGAGGGTGGCAGTGTACCCGTCATTATCAGCACA TCGCGTGTGAGTGCACCAGCTGGTGGCAAGGCCAGCTGGGGTGCAGACAGGTCCTACTGGAAGGAGTTCCTGGTG ATGTGCACGCTCTTTGTGCTGCCGGCGTGCTCCCCAGTTTTATTCTTGCTCTACCGGCACCGGAACAGCATGAAA GTCTTCCTGAAGCAGGGGGAATGTGCCAGCGTGCACCCCAAGACCTGCCCTGTGGTGCTGCCCCCTGAGACCCGC CCACTCAACGGCCTAGGGCCCCCTAGCACCCCGCTCGATCACCGAGGGTACCAGTCCCTGTCAGACAGCCCCCCG GGGGCCCGAGTCTTCACTGAGTCAGAGAGAGGCCCACTCAGCATCCAAGACAGCTTCGTGGAGGTATCCCCAGTG TGCCCCCGGCCCCGGGTCCGCCTTGGCTCGGAGATCCGTGACTCTGTGGTGTGAGAGCTGACTTCCAGAGGACGC TGCCCTGGCTTCAGGGGCTGTGAATGCTCGGAGAGGGTCAACTGGACCTCCCCCTCCGCTCTGCTCTTCGTGGAAC ACGACCGTGGTGCCCGGCCCTTGGGAGCCTTGGAGCCAGCTGGCCTGCTCCCAGTCAAGTAGCGAAGCTCC CAGTGCTCCTTATGTAAACTGAGCCCTTTGTTTAAAAAACAATTCCAAATGTGAAACTAGAATGAGAGGGAAGAG ATAGCATGGCATGCAGCACACACGGCTGCTCCAGTTCATGGCCTCCCAGGGGTGCTGGGGGATGCATCCAAAGTGG TTGTCTGAGACAGAGTTGGAAACCCTCACCAACTGGCCTCTTCACCTTCCACATTATCCCGCTGCCACCGGCTGC TIGCTGCCGTCGTCCCACCACCTCAGGGACCAGAGGGCTAGGTTGGCACTGCGGCCCTCACCAGGTCCTGGGCTC GGACCCAACTCCTGGACCTTTCCAGCCTGTATCAGGCTGTGGCCACACGAGAGGACAGCGCGAGCTCAGGAGAGA CTGGTCCTCTCCCCAGTCCCCAGTTCACCCTCCATCCTCACCTTCCTCCACTCTAAGGGATATCAACACTGCCC AGCACAGGGGCCCTGAATTTATGTGGTTTTTTATACATTTTTTTAATAAGATGCACTTTATGTCATTTTTTAATAAA GTCTGAAGAATTACTGTTTAAAAAAAAAAAA

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## FIGURE 454

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA67962

><subunit 1 of 1, 837 aa, 1 stop

><MW: 92750, pI: 7.04, NX(S/T): 6

MLRTAMGLRSWLAAPWGALPPRPPILLILLILLILLILQPPPPTWALSPRISLPLGSEERPFLRFE
AEHISNYTALLLSRDGRTLYVGAREALFALSSNLSFLPGGEYQELLWGADAEKKQQCSFKGKD
PQRDCQNYIKILLPLSGSHLFTCGTAAFSPMCTYINMENFTLARDEKGNVLLEDGKGRCPFDP
NFKSTALVVDGELYTGTVSSFQGNDPAISRSQSLRPTKTESSLNWLQDPAFVASAYIPESLGS
LQGDDDKIYFFFSETGQEFEFFENTIVSRIARICKGDEGGERVLQQRWTSFLKAQLLCSRPDD
GFPFNVLQDVFTLSPSPQDWRDTLFYGVFTSQWHRGTTEGSAVCVFTMKDVQRVFSGLYKEVN
RETQQWYTVTHPVPTPRPGACITNSARERKINSSLQLPDRVLNFLKDHFLMDGQVRSRMLLLQ
PQARYQRVAVHRVPGLHHTYDVLFLGTGDGRLHKAVSVGPRVHIIEELQIFSSGQPVQNLLLD
THRGLLYAASHSGVVQVPMANCSLYRSCGDCLLARDPYCAWSGSSCKHVSLYQPQLATRPWIQ
DIEGASAKDLCSASSVVSPSFVPTGEKPCEQVQFQPNTVNTLACPLLSNLATRLWLRNGAPVN
ASASCHVLPTGDLLLVGTQQLGEFQCWSLEEGFQQLVASYCPEVVEDGVADQTDEGGSVPVII
STSRVSAPAGGKASWGADRSYWKEFLVMCTLFVLAVLLPVLFLLYRHRNSMKVFLKQGECASV
HPKTCPVVLPPETRPLNGLGPPSTPLDHRGYQSLSDSPPGARVFTESEKRPLSIQDSFVEVSP
VCPRPRVRLGSEIRDSVV

#### Transmembrane domains:

amino acids 23-46 (type II), 718-738

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## FIGURE 455

TAAGATGAGGGCATCCCTCACGTTCACACCCCTGGTGGCATCTGCCAGCCCTGTTCTGGGGAC AAGGCGGGCTTTCGTGGGAGCCATGCTCAGCCTGCCAGGAAGCCAAGCCCTACAGTGCAGAGG AAACAGAATTTCAACGGGAAGCTGGTTTGCTTCATACCATTGGGATCTGCTGGTAAAGCTGTT ATTTGGGTTTAGGGACTGATCCCTTGCAGTTTACTTCTGGATCACCATGAATGGCCAAGATGG TGGCAGAACACGCTGTGGACCCTGAGTTAGAGACAATGCAAATGTTGGATTGGGTGTAATTCT TTTTGAATCCCAGATCCAGTCTGTACTTGAATATGAGCAGAAGATCTACAAGAATGCTGACAG GGAACCGTGTTAAGACCCAGCACCCCTATTCCCAGGAGCTTCTGGCCTGACCATCTGCAGCCA AAGCACTAACAGGGACAGATATGGGAATGTCCACCTTTGATCCGCATCCTGCACAATAGTGGT CCCACCATGGCTGCCACTTTTTTATACTATTTGGAGAAAAGACCTTGTATAAATTCGAGGCCC GAGTGACTAACGTCTCTGTCACACGGAAATGGGTACTTGGTGGCATAGAGAAACACAATTAGC TCTGCTGTCCTTTCCCCAACGTACTGGGTCCCGAGCGTGGTGGGTATTTGCCACACTGGGTGC CAGCTCAGCAGCCCCCCACCTCTCTTTATTCTCTCCAAAGCTGGTCTTTCTGACTATCATTGT GGTAGGGGGAGACAGATGCTAAAGGTGGAAGCTGACCTGGAGAAAGAGACACACGGGGTGAC TGTGGCAAAGGACAGCTGGAAAAGAAACTCTATCACTTCTTCATTGGCAACCACAAGGCACCC GAGGCCATGGCACTCCCAGAGGCTGTGCGCAGAGCCAAGCCTCTCAACCTCTTCTGGCCCTGC GTCCTGCAGCGAAGTCTCTGCTGTAAGACAGTAGACTCCTTCGATGAGGTGCTCAAAAATGCT ACCCGGGGTGGTGTCTGGCTTGCAGTCTGGCCCAGTTCAGAGAAAGTTGCAGAGATCAGGG GCCAAGGATGTCATAGCCCCAGGTTGTCCTCAGGGTCCCAATCCTAGGGCAGGGTGTGCATGG AAGCAAGAACTATGGAAACCTAGCTCCAGTCTGCAGGCTCTGAGCCCCTAGTTCCTCACTCCA GCGGGGCTCCCTCACTGCACAGAACCCACCCCTTCTGTGTGGGCACTGCTGACCACACAGATG ACCCAGACCCAAAGAGCCTGGCAGAAGCTCTGTGGTTGGAGCTGGGCTCCGTCTCCAGGTCTG GTTCAGGGGGATCAGGAAGGCTCTTTTCCACCTGTGGCTTCACTGGCCCTTTGAGATTTCCTA TCTCACCGTTACTTCAGTTACCCTTGCAGGGGGCCCAGGGAGTCAAGAATATACCGTGTTCCTC CAGGGTTTAAGCCGGCCATGCCTTCCCGAGAGCATAACCAACTTGACAGGGGTGCCCAGTTAC CCCACAAACTGAAGGAAGGAGATCCTTCCCCCGTCCCCAGGAGTGCTCTCAACCAGCCTCAGA AAGCTTGAGAAGATGGACCCTTTGCCCACCAGGGTTAATTCCTGGTGGGGCAGCTCGGCTGTG ATCAGGGCAACCAAACCTATAGGAAGCCTTCCAGTGTGAGCTGGAATTAGACTGAACATGTGC TTGGGCCTGCCTCTCCCTAGACGCAGTTGCGGGGCACTCCAGGGAATGAACCAGCTCAAGTGT GTCCCTAACAGCAGCCTGGAGCTACCCCCAATCCCTCACAGCCTGACCCTCCTCATTCCATCA GATCTCGTGCCG

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## FIGURE 456

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA69555</pre>

><subunit 1 of 1, 148 aa, 1 stop

><MW: 16214, pI: 10.22, NX(S/T): 0

MGTWWHRETQLATFSATLLTQLHPTLLTQVHPLLLSFPQRTGSRAWWVFATLGASSAAPH LSLFSPKLVFLTIIVVGGGQMLKVEADLEKETHGVTVAKDSWKRNSITSSLATTRHPRPW HSQRLCAEPSLSTSSGPASCSEVSAVRQ

#### Important features of the protein:

#### Signal peptide:

Amino acids 1-28

#### Transmembrane domain:

Amino acids 64-78

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 103-107

#### N-myristoylation sites:

Amino acids 53-59;94-100

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## FIGURE 457

CCCGCGCGCCCCTGGCACTCAATCCCCGCCATGTGGGGGGCTCCTGCTCGCCCTGGCCGCCTTC GCGCCGGCCGTCGGCCCGGCTCTGGGGGCGCCCCAGGAACTCGGTGCTGGGCCTCGCGCAGCCC GGGACCACCAAGGTCCCAGGCTCGACCCCGGCCCTGCATAGCAGCCCGGCACAGCCGCCGGCG GAGACAGCTAACGGGACCTCAGAACAGCATGTCCGGATTCGAGTCATCAAGAAGAAAAAGGTC ATTATGAAGAAGCGGAAGAAGCTAACTCTAACTCGCCCCACCCCACTGGTGACTGCCGGGCCC CTTGTGACCCCCACTCCAGCAGGGACCCTCGACCCCGCTGAGAAACAAGAAACAGGCTGTCCT CCTTTGGGTCTGGAGTCCCTGCGAGTTTCAGATAGCCGGCTTGAGGCATCCAGCAGCCAGTCC TATGATGGAGCCTGGTGTGCTGAGGAGCAGGACGCCGATCCATGGTTTCAGGTGGACGCTGGG GTCACATCATACAAGGTCCAGTTCAGCAATGACAGTCGGACCTGGTGGGGAAGTAGGAACCAC AGCAGTGGGATGGACGCAGTATTTCCTGCCAATTCAGACCCAGAAACTCCAGTGCTGAACCTC CTGCCGGAGCCCCAGGTGGCCCGCTTCATTCGCCTGCTGCCCCAGACCTGGCTCCAGGGAGGC GCGCCTTGCCTCCGGGCAGAGATCCTGGCCTGCCCAGTCTCAGACCCCAATGACCTATTCCTT GAGGCCCCTGCGTCGGGATCCTCTGACCCTCTAGACTTTCAGCATCACAATTACAAGGCCATG AGGAAGCTGATGAAGCAGGTACAAGAGCAATGCCCCCAACATCACCCGCATCTACAGCATTGGG AAGAGCTACCAGGGCCTGAAGCTGTATGTGATGGAAATGTCGGACAAGCCTGGGGAGCATGAG TTGCTTCTGCTCCTGATGCAGTTCCTGTGCCATGAGTTCCTGCGAGGGAACCCACGGGTGACC CGGCTGCTCTGAGATGCGCATTCACCTGCTGCCCTCCATGAACCCTGATGGCTATGAGATC GCCTACCACCGGGGTTCAGAGCTGGTGGGCCTGGGCCGAGGGCCGCTGGAACAACCAGAGCATC GATCTTAACCATAATTTTGCTGACCTCAACACACCACTGTGGGAAGCACAGGACGATGGGAAG GTGCCCCACATCGTCCCCAACCATCACCTGCCATTGCCCACTTACTACACCCTGCCCAATGCC ACCGTGGCTCCTGAAACGCGGCAGTAATCAAGTGGATGAAGCGGATCCCCTTTGTGCTAAGT GCCAACCTCCACGGGGGTGAGCTCGTGGTGTCCTACCCATTCGACATGACTCGCACCCCGTGG GCTGCCCGCGAGCTCACGCCCACACCAGATGATGCTGTGTTTCGCTGGCTCAGCACTGTCTAT GCTGGCAGTAATCTGGCCATGCAGGACACCAGCCGCCGACCCTGCCACAGCCAGGACTTCTCC AGCTACCTACACACCAACTGCTTTGAGGTCACTGTGGAGCTGTCCTGTGACAAGTTCCCTCAC GTGCGCATGGGCATTGCAGGAGTGGTGAGGGACAAGGACACGGAGCTTGGGATTGCTGACGCT CTGCTGACCCCAGGGGACTACATGGTGACTGCCAGTGCCGAGGGCTACCATTCAGTGACACGG AACTGTCGGGTCACCTTTGAAGAGGGCCCCTTCCCCTGCAATTTCGTGCTCACCAAGACTCCC AAACAGAGGCTGCGCGAGCTGCTGGCAGCTGGGGCCCAAGGTGCCCCCGGACCTTCGCAGGCGC CTGGAGCGGCTAAGGGGACAGAAGGAT<u>TGA</u>TACCTGCGGTTTAAGAGCCCCTAGGGCAGGCTGG 

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## FIGURE 458

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA71162

><subunit 1 of 1, 734 aa, 1 stop

><MW: 81677, pI: 6.60; NX(S/T): 6

MWGLLLALAAFAPAVGPALGAPRNSVLGLAQPGTTKVPGSTPALHSSPAQPPAETANGTS EQHVRIRVIKKKKVIMKKRKKLTLTRPTPLVTAGPLVTPTPAGTLDPAEKQETGCPPLGL ESLRVSDSRLEASSSQSFGLGPHRGRLNIHSGLEDGDLYDGAWCAEEQDADPWFQVDAGH PTRFSGVITQGRNSVWRYDWVTSYKVQFSNDSRTWWGSRNHSSGMDAVFPANSDPETPVL NLLPEPQVARFIRLLPQTWLQGGAPCLRAEILACPVSDPNDLFLEAPASGSSDPLDFQHH NYKAMRKLMKQVQEQCPNITRIYSIGKSYQGLKLYVMEMSDKPGEHELGEPEVRYVAGMH GNEALGRELLLLLMQFLCHEFLRGNPRVTRLLSEMRIHLLPSMNPDGYEIAYHRGSELVG WAEGRWNNQSIDLNHNFADLNTPLWEAQDDGKVPHIVPNHHLPLPTYYTLPNATVAPETR AVIKWMKRIPFVLSANLHGGELVVSYPFDMTRTPWAARELTPTPDDAVFRWLSTVYAGSN LAMQDTSRRPCHSQDFSVHGNIINGADWHTVPGSMNDFSYLHTNCFEVTVELSCDKFPHE NELPQEWENNKDALLTYLEQVRMGIAGVVRDKDTELGIADAVIAVDGINHDVTTAWGGDY WRLLTPGDYMVTASAEGYHSVTRNCRVTFEEGPFPCNFVLTKTPKQRLRELLAAGAKVPPDLRRRLERLRGQKD

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## FIGURE 459

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## FIGURE 460

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA71290
><subunit 1 of 1, 85 aa, 1 stop
><MW: 9700, pI: 9.55, NX(S/T): 0
MKKVLLLITAILAVAVGFPVSQDQEREKRSISDSDELASGFFVFPYPYPFRPLPPIPFPRFPW
FRRNFPIPIPESAPTTPLPSEK

# Important features of the protein: Signal peptide:

amino acids 1-17

antino actab i i,

#### Homologous region to B3-hordein:

amino acids 47-85

#### Important features of the protein:

Signal peptide:

Amino acids 1-20

#### N-glycosylation sites:

Amino acids 57-61;210-214;220-224;318-322;428-432;472-476

#### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 80-84

#### N-myristoylation sites:

Amino acids 3-9;20-29;39-48;152-161;161-170;262-271;358-364; 538-544;560-566;637-643

#### Zinc carboxypeptidases, zinc-binding region 2 signature:

Amino acids 498-509

#### Zinc carboxypeptidases:

Amino acids 391-411

## FIGURE 461

AGCAGGAGCAGGAGAGGGACAATGGAAGCTGCCCCGTCCAGGTTCATGTTCCTCTTATTTCTC CTCACGTGTGAGCTGGCTGCAGAAGTTGCTGCAGAAGTTGAGAAATCCTCAGATGGTCCTGGT GCTGCCCAGGAACCCACGTGGCTCACAGATGTCCCAGCTGCCATGGAATTCATTGCTGCCACT GAGGTGGCTGTCATAGGCTTCTTCCAGGATTTAGAAATACCAGCAGTGCCCATACTCCATAGC ATGGTGCAAAAATTCCCAGGCGTGTCATTTGGGATCAGCACTGATTCTGAGGTTCTGACACAC TACAACATCACTGGGAACACCATCTGCCTCTTTCGCCTGGTAGACAATGAACAACTGAATTTA GAGGACGAAGACATTGAAAGCATTGATGCCACCAAATTGAGCCGTTTCATTGAGATCAACAGC CTCCACATGGTGACAGAGTACAACCCTGTGACTGTGATTGGGTTATTCAACAGCGTAATTCAG ATTCATCTCCTCCTGATAATGAACAAGGCCTCCCCAGAGTATGAAGAGAACATGCACAGATAC CAGAAGGCAGCCAAGCTCTTCCAGGGGAAGATTCTCTTTATTCTGGTGGACAGTGGTATGAAA GAAAATGGGAAGGTGATATCATTTTTCAAACTAAAGGAGTCTCAACTGCCAGCTTTGGCAATT TACCAGACTCTAGATGACGAGTGGGATACACTGCCCACAGCAGAAGTTTCCGTAGAGCATGTG AAGACTCCAAAGGTGGAACTCTGACTTCTCCTTGGAACTACATATGGCCAAGTATCTACTTTA TGCAAAGTAAAAAGGCACAACTCAAATCTCAGAGACACTAAACAACAGGATCACTAGGCCTGC ACACACACAGAGCTTCATTTCCTGTCTTAAAATCTCGTTTTTCTCTTCTTCTTCTTTTAAA TTTCATATCCTCACTCCCTATCCAATTTCCTTCTTATCGTGCATTCATACTCTGTAAGCCCAT CTGTAACACCCTAGATCAAGGCTTTAAGAGACTCACTGTGATGCCTCTATGAAAGAGAGGCA TTCCTAGAGAAAGATTGTTCCAATTTGTCATTTAATATCAAGTTTGTATACTGCACATGACTT ACACACAACATAGTTCCTGCTCTTTTAAGGTTACCTAAGGGTTGAAACTCTACCTTCTTTCAT AAGCACATGTCCGTCTCTGACTCAGGATCAAAAACCAAAGGATGGTTTTAAACACCTTTGTGA AATTGTCTTTTTGCCAGAAGTTAAAGGCTGTCTCCAAGTCCCTGAACTCAGCAGAAATAGACC ATGTGAAAACTCCATGCTTGGTTAGCATCTCCAACTCCCTATGTAAATCAACAACCTGCATAA TAAATAAAAGGCAATCATGTTATA

## FIGURE 462

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA76401
><subunit 1 of 1, 273 aa, 1 stop
><MW: 30480, pI: 4.60, NX(S/T): 1
MEAAPSRFMFLLFLLTCELAAEVAAEVEKSSDGPGAAQEPTWLTDVPAAMEFIAATEVAVIGF
FQDLEIPAVPILHSMVQKFPGVSFGISTDSEVLTHYNITGNTICLFRLVDNEQLNLEDEDIES
IDATKLSRFIEINSLHMVTEYNPVTVIGLFNSVIQIHLLLIMNKASPEYEENMHRYQKAAKLF
QGKILFILVDSGMKENGKVISFFKLKESQLPALAIYQTLDDEWDTLPTAEVSVEHVQNFCDGF
LSGKLLKENRESEGKTPKVEL

# Signal peptide: amino acids 1-20

Transmembrane domain: amino acids 143-162

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## FIGURE 463

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## FIGURE 464

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA76541 ><subunit 1 of 1, 178 aa, 1 stop

><MW: 19600, pI: 5.89, NX(S/T): 1

MHRPEAMLLLTLALLGGPTWAGKMYGPGGGKYFSTTEDYDHEITGLRVSVGLLLVKSVQVKL GDSWDVKLGALGGNTQEVTLQPGEYITKVFVAFQAFLRGMVMYTSKDRYFYFGKLDGQISSAY PSQEGQVLVGIYGQYQLLGIKSIGFEWNYPLEEPTTEPPVNLTYSANSPVGR

## Signal peptide:

amino acids 1-22

## FIGURE 465

CGGACGCGTGGGTCCGGCGCGCTGAGGCTGCACCGGGCACGGGTCGGCCGCAATCCAGCCTGGGCGGAGCCGGAG TTGCGAGCCGCTGCCTAGAGGCCGAGGAGCTCACAGCTATGGGCTGGAGGCCCCGGAGAGCTCGGGGGACCCCGT TGCTGCTGCTACTACTGCTGCTGCTCTGGCCAGTGCCAGGCGCGCGGGGTGCTTCAAGGACATATCCCTGGGC AGCCAGTCACCCCGCACTGGGTCCTGGATGGACAACCCTGGCGCACCGTCAGCCTGGAGGAGCCGGTCTCGAAGC CAGACATGGGGCTGGTGGCCCTGGAGGCTGAAGGCCAGGAGCTCCTGCTTGAGCTGGAGAAGAACCACAGGCTGC TGGCCCCAGGATACATAGAAACCCACTACGGCCCAGATGGGCAGCCAGTGGTGCTGGCCCCCAACCACACGGATC ATTGCCACTACCAAGGGCGAGTAAGGGGCTTCCCCGACTCCTGGGTAGTCCTCTGCACCTGCTCTGGGATGAGTG GCCTGATCACCCTCAGCAGGAATGCCAGCTATTATCTGCGTCCCTGGCCACCCCGGGGCTCCAAGGACTTCTCAA CCCACGAGATCTTTCGGATGGAGCAGCTGCTCACCTGGAAAGGAACCTGTGGCCACAGGGATCCTGGGAACAAG CGGGCATGACCAGCCTTCCTGGTGGTCCCCAGAGCAGGGGGCAGGCGAGAAGCGCGCAGGACCCGGAAGTACCTGG TGGAAGTCGCCAACTACGTGGACCAGCTTCTCAGGACTCTGGACATTCAGGTGGCGCTGACCGGCCTGGAGGTGT GGACCGAGCGGGACCGCAGCCGCGTCACGCAGGACGCCAACGCCACGCTCTGGGCCTTCCTGCAGTGGCGCCGGG GGCTGTGGGCCCAGGCCCCACGACTCCGCGCAGCTGCTCACGGGCCGCCCTTCCAGGGCCCCACAGTGGGCC TGGCGCCCGTCGAGGGCATGTGCCGCGCGAGAGCTCGGGAGCGTGAGCACGGACCACTCGGAGCTCCCCATCG GCGCCGCAGCCACGACGCCATGAGATCGGCCACAGCCTCGGCCTCAGCCACGACCCCGACGGCTGCTGC AGGCTGCGGCCGAGTCCGGAGGCTGCGTCATGGCTGCGGCCACCGGGCACCCGTTTCCGCGCGTGTTCAGCGCCT TCCCGGTGCCGCCGCCCTCTGCGGGAACGGCTTCGTGGAAGCGGGCGAGGAGTGTGACTGCGGCCCTGGCCAGG AGTGCCGCGACCTCTGCTGCTCACAACTGCTCGCTGCGCCCCGGGGGCCCAGTGCGCCCACGGGGACTGCT GCGTGCGCTGCCTGAAGCCGGCTGGAGCGCTGTGCCGCCAGGCCATGGGTGACTGTGACCTCCCTGAGTTTT GCACGGGCACCTCCCCACTGTCCCCCAGACGTTTACCTACTGGACGGCTCACCCTGTGCCAGGGGCAGTGGCT CCGAGGCCTGTTTCCAGGTGGTGAACTCTGCGGGAGATGCTCATGGAAACTGCGGCCAGGACAGCGAGGGCCACT TCCTGCCCTGTGCAGGGAGGGATGCCCTGTGTGGGAAGCTGCAGTGCCAGGGTGGAAAGCCCAGCCTGCTCGCAC CGCACATGGTGCCAGTGGACTCTACCGTTCACCTAGATGGCCAGGAAGTGACTTGTCGGGGAGCCTTGGCACTCC CCAGTGCCCAGCTGGACCTGGCCTGGGCCTGGTAGAGCCAGGCACCCAGTGTGGACCTAGAATGGTGTGCC GCAATAGCAACCATAACTGCCACTGTGCTCCAGGCTGGGCTCCACCCTTCTGTGACAAGCCAGGCTTTGGTGGCA GCATGGACAGTGGCCCTGTGCAGGCTGAAAACCATGACACCTTCCTGCTGGCCATGCTCCTCAGCGTCCTGCTGC CTCTGCTCCCAGGGGCCGGCCTGGCCTGGTGTTGCTACCGACTCCCAGGAGCCCATCTGCAGCGATGCAGCTGGG GCTGCAGAAGGGACCCTGCGTGCAGTGGCCCCAAAGATGGCCCACACAGGGACCACCCCCTGGGCGCGTTCACC CCATGGAGTTGGGCCCCACAGCCACTGGACAGCCCTGGCCCCTGGACCCTGAGAACTCTCATGAGCCCAGCAGCC ACCCTGAGAAGCCTCTGCCAGCAGTCTCGCCTGACCCCCAAGCAGATCAAGTCCAGATGCCAAGATCCTGCCTCT GGTGAGAGGTAGCTCCTAAAATGAACAGATTTAAAGACAGGTGGCCACTGACAGCCACTCCAGGAACTTGAACTG TCGACCCACCCACTCCAGGAACCCAGAGCCACATTAGAAGTTCCTGAGGGCTGGAGAACACTGCTTGGGCACACT GTAGTGCTGGCCATCCCAAAAGGGCTCTGTCCTGGGAGTCTGGTGTGTCTCCTACATGCAATTTCCACGGACCCA GCTCTGTGGAGGCATGACTGCCAGAAGCTAGTGGTCCTGGGGCCCTATGGTTCGACTGAGTCCACACTCC CTCCCCTAGGTGGTTCCTGAGCCCCCACCCCCAATCCCAGTGCTACACCTGAGGTTCTGGAGCTCAGAATCTGAC AGCCTCTCCCCCATTCTGTGTGTCCCGGGGGACAGAGGGAACCATTTAAGAAAAGATACCAAAGTAGAAGTCAA AAGAAAGACATGTTGGCTATAGGCGTGGTGGCTCATGCCTATAATCCCAGCACTTTGGGAAGCCGGGGTAGGAGG ATCACCAGAGGCCAGCAGCCACCCAGCCTGGGCAACACACAGCAGACACCGCATCTACAGAAAATTTTAAAA TTAGCTGGGCGTGGTGTGTACCTGTAGGCCTAGCTGCTCAGGAGGCTGAAGCAGGAGGATCACTTGAGCCTG AGTTCAACACTGCAGTGAGCTATGGTGGCACCACTGCACTCCAGCCTGGGTGACAGAGCCAAGACCCTGTCTCTAA 

## FIGURE 466

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA76788
><subunit 1 of 1, 813 aa, 1 stop
><MW: 87739, pI: 6.94, NX(S/T): 5</pre>

MGWRPRRARGTPLLLLLLLLLLWPVPGAGVLQGHIPGQPVTPHWVLDGQPWRTVSLEEPVSKPDMGLVALEAEGQ ELLLELEKNHRLLAPGYIETHYGPDGQPVVLAPNHTDHCHYQGRVRGFPDSWVVLCTCSGMSGLITLSRNASYYL RPWPPRGSKDFSTHEIFRMEQLLTWKGTCGHRDPGNKAGMTSLPGGPQSRGRREARRTRKYLELYIVADHTLFLT RHRNLNHTKQRLLEVANYVDQLLRTLDIQVALTGLEVWTERDRSRVTQDANATLWAFLQWRRGLWAQRPHDSAQL LTGRAFQGATVGLAPVEGMCRAESSGGVSTDHSELPIGAAATMAHEIGHSLGLSHDPDGCCVEAAAESGGCVMAA ATGHPFPRVFSACSRRQLRAFFRKGGGACLSNAPDPGLPVPPALCGNGFVEAGEECDCGPGQECRDLCCFAHNCS LRPGAQCAHGDCCVRCLLKPAGALCRQAMGDCDLPEFCTGTSSHCPPDVYLLDGSPCARGSGYCWDGACPTLEQQ CQQLWGPGSHPAPEACFQVVNSAGDAHGNCGQDSEGHFLPCAGRDALCGKLQCQGGKPSLLAPHMVPVDSTVHLD GQEVTCRGALALPSAQLDLLGLGLVEPGTQCGPRMVCQSRRCRKNAFQELQRCLTACHSHGVCNSNHNCHCAPGW APPFCDKPGFGGSMDSGPVQAENHDTFLLAMLLSVLLPLLPGAGLAWCCYRLPGAHLQRCSWGCRRDPACSGPKD GPHRDHPLGGVHPMELGPTATGQPWPLDPENSHEPSSHPEKPLPAVSPDPQADQVQMPRSCLW

Important features of the protein: Signal peptide:

Amino acids 1-27

Transmembrane domain:

Amino acids 702-720

N-glycosylation sites:

Amino acids 109-113;145-149;231-235;276-280;448-452

Tyrosine kinase phosphorylation site:

Amino acids 236-244

N-myristoylation sites:

Amino acids 29-35;185-191;195-201;308-314;318-324;326-332;338-344;370-376; 400-406;402-408;454-460;504-510;510-516;517-523;580-586; 601-607;661-667;687-693;717-723;719-725

Amidation site:

Amino acids 200-204

Neutral zinc metallopeptidases, zinc-binding region signature:

Amino acids 342-352

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## FIGURE 467

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## **FIGURE 468**

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA77623
><subunit 1 of 1, 97 aa, 1 stop
><MW: 10160, pI: 6.56, NX(S/T): 0
MQLGTGLLLAAVLSLQLAAAEAIWCHQCTGFGGCSHGSRCLRDSTHCVTTATRVLSNTEDLPL
VTKMCHIGCPDIPSLGLGPYYSIACCQTSLCNHD

Important features of the protein: Signal peptide: amino acids 1-20

N-myristoylation sites. amino acids 6-11 and 33-38

Prokaryotic membrane lipoprotein lipid attachment sites. amino acids 24-34 and 78-88

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## FIGURE 469

CATGGAGCCTCTTGCAGCTTACCCGCTAAAATGTTCCGGGCCCAGAGCAAAGGTATTTGCAGT TTTGCTGTCTATAGTTCTATGCACAGTAACGCTATTTCTTCTACAACTAAAATTCCTCAAACC TAAAATCAACAGCTTTTATGCCTTTGAAGTGAAGGATGCAAAAGGAAGAACTGTTTCTCTGGA AAATTACTTAGGGCTGAAGGAACTGCACAAAGAGTTTGGACCATCCCACTTCAGCGTGTTGGC AAGAAAAACTACGGAGTAACTTTCCCCATCTTCCACAAGATTAAGATTCTAGGATCTGAAGG AGAACCTGCATTTAGATTTCTTGTTGATTCTTCAAAGAAGGAACCAAGGTGGAATTTTTGGAA GTATCTTGTCAACCCTGAGGGTCAAGTTGTGAAGTTCTGGAGGCCCAGAGGAGCCCATTGAAGT CATCAGGCCTGACATAGCAGCTCTGGTTAGACAAGTGATCATAAAAAAAGAAGAGAGCTCTA**TG A**GAATGCCATTGCGTTTCTAATAGAACAGAGAAATGTCTCCATGAGGGTTTGGTCTCATTTTA AACATTTTTTTTTTTGGAGACAGTGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTAGTGCGTT CTCAGCTCATTGCAACCTCTGCCTTTTTAAACATGCTATTAAATGTGGCAATGAAGGATTTTT TTTTAATGTTATCTTGCTATTAAGTGGTAATGAATGTTCCCAGGATGAGGATGTTACCCAAAG CAAAAATCAAGAGTAGCCAAAGAATCAACATGAAATATATTAACTACTTCCTCTGACCATACT AAAGAATTCAGAATACACAGTGACCAATGTGCCTCAATATCTTATTGTTCAACTTGACATTTT CTAGGACTGTACTTGATGAAAATGCCAACACACTAGACCACTCTTTGGATTCAAGAGCACTGT GTATGACTGAAATTTCTGGAATAACTGTAAATGGTTATGTTAATGGAATAAAACACAAATGTT AGGATTTTGTTTTTTTTTTTAAGTACAGGTTCCTAGTGTTTTACTATAACTGTCACTATGTA TGTAACTGACATATATAAATAGTCATTTATAAATGACCGTATTATAACATTTGAAAAAGTCTT CATCAAAAAAAAAAAAAAAA

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## FIGURE 470

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA80136
><subunit 1 of 1, 209 aa, 1 stop
><MW: 23909, pI: 9.68, NX(S/T): 0
MEPLAAYPLKCSGPRAKVFAVLLSIVLCTVTLFLLQLKFLKPKINSFYAFEVKDAKGRTVSLE
KYKGKVSLVVNVASDCQLTDRNYLGLKELHKEFGPSHFSVLAFPCNQFGESEPRPSKEVESFA
RKNYGVTFPIFHKIKILGSEGEPAFRFLVDSSKKEPRWNFWKYLVNPEGQVVKFWRPEEPIEV
IRPDIAALVRQVIIKKKEDL

Important features of the protein: Signal peptide:

amino acids 1-31

Glutathione peroxidases signature 2. amino acids 104-112

Glutathione peroxidases. amino acids 57-82

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## FIGURE 471

GCCCTAACCTTCCCAGGGCTCAGCTCTTTGGAGCTGCCCATTCCTCCGGCTGCGAGAAAGGACGCGCGCCCTGCG TCGGGCGAAGAAAGAAGCAAAACTTGTCGGGAGGGTTTCGTCATCAACCTCCTTCCCGCAAACCTAAACCTCCT GCTGGCTGTGGAATTAGATCTGTTTTGAACCCAGTGGAGCGCATCGCTGGGGCTCGGAAGTCACCGTCCGCGGC ACCGGGTTGGCGCTGCCCGAGTGGAACCGACAGTTTGCGAGCCTCGGCTGCAAGTGGCCTCTCCTCCCCCGCGGTT GTTGTTCAGTGTCGGGTGAGGGCTGCGAGTGTGGCAAGTTGCAAAGAGAGCCTCAGAGGTCCGAAGAGCGCTGCG CTCCTACTCGCGTTCGCTTCTTCTCTCGGTTCCCTACTGTGAAATCGCAGCGACATTTACAAAGGCCTCCG GGTCCTACCGAGACCGATCCGCAGCGTTTGGCCCGGTCGTGCCTATTGCATCGGGAGCCCCCGAGCACCGGCGAA GGACTGGCGGGTGGGGTAGGGAGGTGGCGGCGGCGGCGCGAGGTTCCCGAAGGCCGACCTGGCCGCTGCAGG AGTTATGTTACTTTGCCACTTCTTCACGGACCAGTTTCAGTTCGCCGATGGGAAACCCGGAGACCAAATCCTTGA TTGGCAGTATGGAGTTACTCAGGCCTTCCCTCACACAGAGGAGGAGGTGGAAGTTGATTCACACGCGTACAGCCA CAGGTGGAAAAGAAACTTGGACTTTCTCAAGGCGGTAGACACGAACCGAGCAAGCGTCGGCCAAGACTCTCCTGA GCCCAGAAGCTTCACAGACCTGCTGCTGGATGATGGGCAGGACAATAACACTCAGATCGAGGAGGATACAGACCA CAATTACTATATCTCGAATATATGGTCCATCTGATTCTGCCAGCCGGGATTTATGGGTGAACATAGACCAAAT GGAAAAAGATAAAGTGAAGATTCATGGAATATTGTCCAATACTCATCGGCAAGCTGCAAGAGTGAATCTGTCCTT CGATTTTCCATTTTATGGCCACTTCCTACGTGAAATCACTGTGGCAACCGGGGGTTTCATATACACTGGAGAAGT CGTACATCGAATGCTAACAGCCACACAGTACATAGCACCTTTAATGGCAAATTTCGATCCCAGTGTATCCAGAAA TTCAACTGTCAGATATTTTGATAATGGCACAGCACTTGTGGTCCAGTGGGACCATGTACATCTCCAGGATAATTA TGTCTTGGTCACACAGATAAGTTCAACCAATCATCCAGTGAAAGTCGGACTGTCCGATGCATTTGTCGTTGTCCA CAGGATCCAACAATTCCCAATGTTCGAAGAAGAACAATTTATGAATACCACCGAGTAGAGCTACAAATGTCAAA AATTACCAACATTTCGGCTGTGGAGATGACCCCATTACCCACATGCCTCCAGTTTAACAGATGTGGCCCCTGTGT ATCTTCTCAGATTGGCTTCAACTGCAGTTGGTGTAGTAAACTTCAAAGATGTTCCAGTGGATTTGATCGTCATCG GCAGGACTGGGTGGACAGTGGATGCCCTGAAGAGTCAAAAGAGAGATGTGTGAGAATACAGAACCAGTGGAAAC TTCTTCTCGAACCACCACAACCGTAGGAGCGACAACCACCCAGTTCAGGGTCCTAACTACCACCAGAAGAGCAGT GACTTCTCAGTTTCCCACCAGCCTCCCTACAGAAGATGATACCAAGATAGCACTACATCTAAAAGATAATGGAGC TTCTACAGATGACAGTGCAGCTGAGAAGAAGGGGGGAACCCTCCACGCTGGCCTCATCATTGGAATCCTCATCCT CTTTATTGAGAGACGCCCAAGCAGATGGCCTGCGATGAAGTTTAGAAGAGGCTCTGGACATCCTGCCTATGCTGA AGTTGAACCAGTTGGAGAGAAAGAAGGCTTTATTGTATCAGAGCAGTGCTAAAATTTCTAGGACAGAACAACACC AAGCTCTAAGCTGCTGTAGCCTGAAGAAGACAAGATTTCTGGACAAGCTCAGCCCAGGAAACAAAGGGTAAACAA AAAACTAAAACTTATACAAGATACCATTTACACTGAACATAGAATTCCCTAGTGGAATGTCATCTATAGTTCACT CGGAACATCTCCCGTGGACTTATCTGAAGTATGACAAGATTATAATGCTTTTGGCTTAGGTGCAGGGTTGCAAAG GGATCAGAAAAAAAAATCATAATAAAGCTTTAGTTCATGAGGG

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## FIGURE 472

MARFPKADLAAAGVMLLCHFFTDQFQFADGKPGDQILDWQYGVTQAFPHTEEEVEVDSHAYSH RWKRNLDFLKAVDTNRASVGQDSPEPRSFTDLLLDDGQDNNTQIEEDTDHNYYISRIYGPSDS ASRDLWVNIDQMEKDKVKIHGILSNTHRQAARVNLSFDFPFYGHFLREITVATGGFIYTGEVV HRMLTATQYIAPLMANFDPSVSRNSTVRYFDNGTALVVQWDHVHLQDNYNLGSFTFQATLLMD GRIIFGYKEIPVLVTQISSTNHPVKVGLSDAFVVVHRIQQIPNVRRRTIYEYHRVELQMSKIT NISAVEMTPLPTCLQFNRCGPCVSSQIGFNCSWCSKLQRCSSGFDRHRQDWVDSGCPEESKEK MCENTEPVETSSRTTTTVGATTTQFRVLTTTRRAVTSQFPTSLPTEDDTKIALHLKDNGASTD DSAAEKKGGTLHAGLIIGILILVLIVATAILVTVYMYHHPTSAASIFFIERRPSRWPAMKFRR GSGHPAYAEVEPVGEKEGFIVSEQC

#### Important features of the protein:

Transmembrane domain:

amino acids 454-478

#### N-glycosylation sites.

amino acids 103-107, 160-164, 213-217, 221-225, 316-320, 345-349

cAMP- and cGMP-dependent protein kinase phosphorylation sites. amino acids 297-301, 492-496, 503-507

#### N-myristoylation sites.

amino acids 42-48, 100-106, 147-153, 279-285, 397-403, 450-456, 455-461

## FIGURE 473

CGCGGAGCCCTGCGCTGGAGGTGCACGGTGTGCACGCTGGACCCCCATGCAACCCCG CGCCCTGCGCCTTAACCAGGACTGCTCCGCGCGCCCCTGAGCCTCGGGCTCCGGCCCGGACCT TTTAAAAGTGCTACTAGAACAAGAGAAAACGTTTTTCACTCTTTTAGTATTACTAGGCTATTT GTCATGTAAAGTGACTTGTGAATCAGGAGACTGTAGACAGCAAGAATTCAGGGATCGGTCTGG AAACTGTGTTCCCTGCAACCAGTGTGGGCCAGGCATGGAGTTGTCTAAGGAATGTGGCTTCGGC TATGGGGAGGATGCACAGTGTGTGACGTGCCGGCTGCACAGGTTCAAGGAGGACTGGGGCTTC CAGAAATGCAAGCCCTGTCTGGACTGCGCAGTGGTGAACCGCTTTCAGAAGGCAAATTGTTCA GCCACCAGTGATGCCATCTGCGGGGGACTGCTTGCCAGGATTTTATAGGAAGACGAAACTTGTC GGCTTTCAAGACATGGAGTGTGTGCCTTGTGGAGACCCTCCTCCTTACGAACCGCACTGT GCCAGCAAGGTCAACCTCGTGAAGATCGCGTCCACGGCCTCCAGCCCACGGGACACGGCGCTG GCTGCCGTTATCTGCAGCGCTCTGGCCACCGTCCTGCTGGCCCTGCTCATCCTCTGTGTCATC TATTGTAAGAGACAGTTTATGGAGAAGAAACCCAGCTGGTCTCTGCGGTCGCAGGACATTCAG TACAACGGCTCTGAGCTGTCGTGTTTTGACAGACCTCAGCTCCACGAATATGCCCACAGAGCC TGCTGTGAGGAGGCCTGCAGCCCCAACCCGGCGACTCTTGGTTGTGGGGTGCATTCTGCAGCC AGTCTTCAGGCAAGAAACGCAGGCCCAGCCGGGGAGATGGTGCCGACTTTCTTCGGATCCCTC ACGCAGTCCATCTGTGGCGAGTTTTCAGATGCCTGGCCTCTGATGCAGAATCCCATGGGTGGT GTTCCAGTCCAGTCTCATTCTGAAAACTTTACAGCAGCTACTGATTTATCTAGATATAACAAC AGTGGCGCTGTCATCCACCCAGCCACTCAGACGTCCCTCCAGGAAGCTTAAAGAACCTGCTTC TTTCTGCAGTAGAAGCGTGTGCTGGAACCCAAAGAGTACTCCTTTGTTAGGCTTATGGACTGA AAGCCTTTCAGCCAGTTGCTTCTGAGCCAGACCAGCTGTAAGCTGAAACCTCAATGAATAACA AGAAAAGACTCCAGGCCGACTCATGATACTCTGCATCTTTCCTACATGAGAAGCTTCTCTGCCAC AAAAGTGACTTCAAAGACTGATGGGTTGAGCTGGCAGCCTATGAGATTGTGGACATATAACAA GAAACAGAAATGCCCTCATGCTTATTTTCATGGTGATTGTGGTTTTTACAAGACTGAAGACCCA GAGTATACTTTTCCTTTCCAGAAATAATTTCATACCGCCTATGAAATATCAGATAAATTACCT TAGCTTTTATGTAGAATGGGTTCAAAAGTGAGTGTTTTCTATTTGAGAAGGACACTTTTTCATC TATTAGATGAAGTTTACTGAATCAGAGGAATCAGACAGAGGAGGAGGATAGCTCTTTCCAGAATCC ACACTTCTGACCTCAGCCTCGGTCTCATGAACACCCGCTGATCTCAGGAGAACACCTGGGCTA GGGAATGTGGTCGAGAAAGGGCAGCCCATTGCCCAGAATTAACACATATTGTAGAGACTTGTA TGCAAAGGTTGGCATATTTATATGAAAATTAGTTGCTATAGAAACATTTGTTGCATCTGTCCC TCTGCCTGAGCTTAGAAGGTTATAGAAAAAGGGTATTTATAAACATAAATGACCTTTTACTTG CATTGTATCTTATACTAAAGGCTTTAGAAATTACAACATATCAGGTTCCCCTACTACTGAAGT AGCCTTCCGTGAGAACACACCACATGTTAGGACTAGAAGAAAATGCACAATTTGTAGGGGTTT GGATGAAGCAGCTGTAACTGCCCTAGTGTAGTTTGACCAGGACATTGTCGTGCTCCTTCCAAT TGTGTAAGATTAGCACATCATCTCCTACTTTAGCCATCCGGTGTTGGATTTAAGAGGAC GGTGCTTCTTTCTATTAAAGTGCTCCATCCCCTACCATCTACACATTAGCATTGTCTCTAGAG CTAAGACAGAAATTAACCCCGTTCAGTCACAAAGCAGGGAATGGTTCATTTACTCTTAATCTT TATGCCCTGGAGAAGACCTACTTGAACAGGGCATATTTTTTAGACTTCTGAACATCAGTATGT TCGAGGGTACTATGATATTTTGGTTTTGGAATTGCCCTGCCCAAGTCACTGTCTTTTAACTTTT AAACTGAATATTAAAATGTATCTGTCTTTCCT

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# FIGURE 474

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA84210

><subunit 1 of 1, 417 aa, 1 stop

><MW: 45305, pI: 5.12, NX(S/T): 6

MALKVLLEQEKTFTTLLVLLGYLSCKVTCESGDCRQQEFRDRSGNCVPCNQCGPGMELSK ECGFGYGEDAQCVTCRLHRFKEDWGFQKCKPCLDCAVVNRFQKANCSATSDAICGDCLPG FYRKTKLVGFQDMECVPCGDPPPPYEPHCASKVNLVKIASTASSPRDTALAAVICSALAT VLLALLILCVIYCKRQFMEKKPSWSLRSQDIQYNGSELSCFDRPQLHEYAHRACCQCRRD SVQTCGPVRLLPSMCCEEACSPNPATLGCGVHSAASLQARNAGPAGEMVPTFFGSLTQSI CGEFSDAWPLMQNPMGGDNISFCDSYPELTGEDIHSLNPELESSTSLDSNSSQDLVGGAV PVQSHSENFTAATDLSRYNNTLVESASTQDALTMRSQLDQESGAVIHPATQTSLQEA

#### Important features of the protein:

#### Signal peptide:

Amino acids

#### •

1 - 25

Amino acids 1

169-192

#### N-glycosylation sites:

Transmembrane domain:

Amino acids

105-109;214-218;319-323;350-354;368-372;379-383

#### cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 200-204;238-242

#### Tyrosine kinase phosphorylation site:

Amino acids

207-214

#### N-myristoylation sites:

Amino acids

55-61;215-221;270-276

#### Prokaryotic membrane lipoprotein lipid attachment site:

Amino acids

259-270

#### TNFR/NGFR family cysteine-rich region proteins:

Amino acids

89-96

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# FIGURE 475

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# FIGURE 476

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA86576

><subunit 1 of 1, 251 aa, 1 stop

><MW: 26935, pI: 7.42, NX(S/T): 2

MAMGVPRVILLCLFGAALCLTGSQALQCYSFEHTYFGPFDLRAMKLPSISCPHECFEAILSLD TGYRAPVTLVRKGCWTGPPAGQTQSNPDALPPDYSVVRGCTTDKCNAHLMTHDALPNLSQAPD PPTLSGAECYACIGVHQDDCAIGRSRRVQCHQDQTACFQGSGRMTVGNFSVPVYIRTCHRPSC TTEGTTSPWTAIDLQGSCCEGYLCNRKSMTQPFTSASATTPPRALQVLALLLPVLLLVGLSA

### Important features of the protein:

Signal peptide:

amino acids 1-19

#### Transmembrane domain:

amino acids 233-251

### N-glycosylation sites.

amino acids 120-124, 174-178

### N-myristoylation sites.

amino acids 15-21, 84-90

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# FIGURE 477

CCCACGCGTCCGGGACAGATGAACTTAAAAGAGAAGCTTTAGCTGCCAAAGATTGGGAAAGGGAAAGGACAAAAA CAACTAGGAAATAACGTATGCAGCAGCTATGGCTGTCAGAGAGTTGTGCTTCCCAAGACAAAGGCAAGTCCTGTT TCTTTTTTTTTTGGGGAGTGTCCTTGGCAGGTTCTGGGTTTTGGACGTTATTCGGTGACTGAGGAAACAGAGAA GGTTTCCGATGATAACAAACAATACCTGCTCCTGGATTCACATACCGGGAATTTGCTCACAAATGAGAAACTGGA CCGAGAGAAGCTGTGTGGCCCTAAAGAGCCCTGTATGCTGTATTTCCAAATTTTAATGGATGATCCCTTTCAGAT TTACCGGGCTGAGCTGAGAGTCAGGGATATAAATGATCACGCGCCAGTATTTCAGGACAAAGAAACAGTCTTAAA AATATCAGAAAATACAGCTGAAGGGACAGCATTTAGACTAGAAAGAGCACAGGATCCAGATGGAGGACTTAACGG TATCCAAAACTACACGATCAGCCCCAACTCTTTTTTCCATATTAACATTAGTGGCGGTGATGAAGGCATGATATA TCCAGAGCTAGTGTTGGACAAAGCACTGGATCGGGAGGAGCAGGGAGAGCTCAGCTTAACCCTCACAGCGCTGGA TGGTGGGTCTCCATCCAGGTCTGGGACCTCTACTGTACGCATCGTTGTCTTGGACGTCAATGACAATGCCCCACA GTTTGCCCAGGCTCTGTATGAGACCCAGGCTCCAGAAAACAGCCCCATTGGGTTCCTTATTGTTAAGGTATGGGC AGAAGATGTAGACTCTGGAGTCAACGCGGAAGTATCCTATTCATTTTTTGATGCCTCAGAAAATATTCGAACGAC CTTTCAAATCAATCCTTTTTCTGGGGAAATCTTTCTCAGAGAATTGCTTGATTATGAGTTAGTAAATTCTTACAA AATAAATATACAGGCAATGGACGGTGGAGGCCTTTCTGCAAGATGTAGGGTTTTAGTGGAAGTATTGGACACCAA TGACAATCCCCCTGAACTGATCGTATCATCATTTTCCAACTCTGTTGCTGAGAATTCTCCTGAGACGCCGCTGGC TGTTTTTAAGATTAATGACAGAGACTCTGGAGAAAATGGAAAGATGGTTTGCTACATTCAAGAGAATCTGCCATT CCTACTAAAACCTTCTGTGGAGAATTTTTACATCCTAATTACAGAAGGCGCGCTGGACAGAGAGATCAGAGCCGA GTACAACATCACTATCACCGTCACTGACTTGGGGACACCCAGGCTGAAAACCGAGCACAACATAACGGTCCTGGT CTCCGACGTCAATGACAACGCCCCCGCCTTCACCCAAACCTCCTACACCCTGTTCGTCCGCGAGAACAACAGCCC GCCGCCCAAGACCCGCACCTGCCCCTCGCCTCCCTGGTCTCCATCAACGCGGACAACGGCCACCTGTTCGCCCT CAGGTCGCTGGACTACGAGGCCCTGCAGGCTTTCGAGTTCCGCGTGGGCGCCACAGACCGCGGCTCCCCCGCGCT GAGCAGAGAGGCGCTGGTGCGGTGCTGGTGCTGGACGCCAACGACAACTCGCCCTTCGTGCTGTACCCGCTGCA GAACGGCTCCGCGCCCTGCACCGAGCTGGTGCCCCGGGCGGCCGAGCCGGGCTACCTGGTGACCAAGGTGGTGGC GGTGGACGGCGACTCGGGCCAGAACGCCTGGCTGTCGTACCAGCTGCTCAAGGCCACGGAGCCCGGGCTGTTCGG CTCCCAGCCCTACCTGCCTCTCCCGGAGGCCGGCCCCAGGCCCAGGCCGAGGCCGACTTGCTCACCGTCTA CCTGGTGGTGGCGTTGGCCTCTTCGCTCTTCCTCTCTCGGTGCTGTTCGTGGCGGTGCGGCTGTG CAGGAGGAGCAGGGCGCCTCGGTGGGTCGCTCGGTGCCCGAGGGTCCTTTTCCAGGGCATCTGGTGGACGT GAGGGGCGCTGAGACCCTGTCCCAGAGCTACCAGTATGAGGTGTCTGACGGGAGGCCCCCGGGACCAGTGAGTT CAAGTTCTTGAAACCAGTTATTTCGGATATTCAGGCACAGGGCCCTGGGAGGAAGGGTGAAGAAAATTCCACCTT  $\texttt{CCGAAATAGCTTTGGATTTAATATTCAG} \underline{\textbf{TAA}} \texttt{AGTCTGTTTTTAGTTTCATATACTTTTGGTGTGTTACATAGCCA}$ TGTTTCTATTAGTTTACTTTTAAATCTCAAATTTAAGTTATTATGCAACTTCAAGCATTATTTTCAAGTAGTATA ATCTGAGGTTTTGATTCAGAGCTTGCATCTCATGATTCTAATCACTTCTGTCTATAGTGTACTTGCTCTA TTTCTACATCATGTATTTAAAAAGAAATATTTCTCTACTACTATGCTCATGACAAAATGAAACAAAGCATATTGT GGCCAATATTTTCTTATGTTAACTTTTGCTGATGTATAAAACAGACTATGCCTTATAATTGAAATAAAATTATAA 

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# FIGURE 478

. ></usr/segdb2/sst/DNA/Dnaseqs.min/ss.DNA87976

><subunit 1 of 1, 800 aa, 1 stop

><MW: 87621, pI: 4.77, NX(S/T): 7

MAVRELCFPRQRQVLFLFLFWGVSLAGSGFGRYSVTEETEKGSFVVNLAKDLGLAEGELAARG
TRVVSDDNKQYLLLDSHTGNLLTNEKLDREKLCGPKEPCMLYFQILMDDPFQIYRAELRVRDI
NDHAPVFQDKETVLKISENTAEGTAFRLERAQDPDGGLNGIQNYTISPNSFFHINISGGDEGM
IYPELVLDKALDREEQGELSLTLTALDGGSPSRSGTSTVRIVVLDVNDNAPQFAQALYETQAP
ENSPIGFLIVKVWAEDVDSGVNAEVSYSFFDASENIRTTFQINPFSGEIFLRELLDYELVNSY
KINIQAMDGGGLSARCRVLVEVLDTNDNPPELIVSSFSNSVAENSPETPLAVFKINDRDSGEN
GKMVCYIQENLPFLLKPSVENFYILITEGALDREIRAEYNITITVTDLGTPRLKTEHNITVLV
SDVNDNAPAFTQTSYTLFVRENNSPALHIGSVSATDRDSGTNAQVTYSLLPPQDPHLPLASLV
SINADNGHLFALRSLDYEALQAFEFRVGATDRGSPALSREALVRVLVLDANDNSPFVLYPLQN
GSAPCTELVPRAAEPGYLVTKVVAVDGDSGQNAWLSYQLLKATEPGLFGVWAHNGEVRTARLL
SERDAAKHRLVVLVKDNGEPPRSATATLHLLLVDGFSQPYLPLPEAAPAQAQAEADLLTVYLV
VALASVSSLFLLSVLLFVAVRLCRRSRAASVGRCSVPEGPFPGHLVDVRGAETLSQSYQYEVC
LTGGPGTSEFKFLKPVISDIQAQGPGRKGEENSTFRNSFGFNIQ

#### Important features of the protein:

#### Signal peptide:

amino acids 1-26

#### Transmembrane domain:

amino acids 687-711

#### N-glycosylation sites.

amino acids 169-173, 181-185, 418-422, 436-440, 567-571, 788-792 Glycosaminoglycan attachment site.

amino acids 28-32

#### Tyrosine kinase phosphorylation sites.

amino acids 394-402, 578-585

#### N-myristoylation sites.

amino acids 22-28, 27-33, 53-59, 82-88, 162-168, 184-190, 217-223, 324-330, 325-331, 471-477, 568-574, 759-765

#### Amidation site.

amino acids 781-785

Aminoacyl-transfer RNA synthetases class-II signature 1.

amino acids 117-138

# Cadherins extracellular repeated domain signature.

amino acids 121-132, 230-241, 335-346, 439-450, 549-560

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# FIGURE 479

CTCGGCTGGATTTAAGGTTGCCGCTAGCCGCCTGGGAATTTAAGGGACCCACACTACCTTCCC GAAGTTGAAGGCAAGCGGTGATTGTTTGTAGACGGCGCTTTGTCATGGGACCTGTGCGGTTGG GAATATTGCTTTTCCTTTTTTTGGCCGTGCACGAGGCTTGGGCTGGGATGTTGAAGGAGGAGG ACGATGACACAGAACGCTTGCCCAGCAAATGCGAAGTGTGTAAGCTGCTGAGCACAGAGCTAC AGGCGGAACTGAGTCGCACCGGTCGATCTCGAGAGGTGCTGGAGCTGGGGCAGGTGCTGGATA CAGGCAAGAGGAAGAGACACGTGCCTTACAGCGTTTCAGAGACAAGGCTGGAAGAGGCCTTAG AGAATTTATGTGAGCGGATCCTGGACTATAGTGTTCACGCTGAGCGCAAGGGCTCACTGAGAT ATGCCAAGGGTCAGAGTCAGACCATGGCAACACTGAAAGGCCTAGTGCAGAAGGGGGTGAAGG TGGATCTGGGGATCCCTCTGGAGCTTTGGGATGAGCCCAGCGTGGAGGTCACATACCTCAAGA AGCAGTGTGAGACCATGTTGGAGGAGTTTGAAGACATTGTGGGAGACTGGTACTTCCACCATC AGGAGCAGCCCCTACAAAATTTTCTCTGTGAAGGTCATGTGCTCCCAGCTGCTGAAACTGCAT GTCTACAGGAAACTTGGACTGGAAAGGAGATCACAGATGGGGAAGAGAAAACAGAAGGGGAGG AAGAGCAGGAGGAGGAGGAAGAGGAGGAAGAGGGGGAGACAAGATGACCAAGACAG GAAGCCACCCCAAACTTGACCGAGAAGATCTT**TGA**CCCTTGCCTTTGAGCCCCCAGGAGGGGA AGGGATCATGGAGAGCCCTCTAAAGCCTGCACTCTCCCTGCTCCACAGCTTTCAGGGTGTGTT TATGAGTGACTCCACCCAAGCTTGTAGCTGTTCTCTCCCATCTAACCTCAGGCAAGATCCTGG TGAAACAGCATGACATGGCTTCTGGGGTGGAGGTGGGGGGTGGAGGTCCTGCTCCTAGAGATG AACTCTATCCAGCCCCTTAATTGGCAGGTGTATGTGCTGACAGTACTGAAAGCTTTCCTCTTT AACTGATCCCACCCCACCCAAAAGTCAGCAGTGGCACTGGAGCTGTGGGCTTTGGGGAAGTC ACTTAGCTCCTTAAGGTCTGTTTTTAGACCCTTCCAAGGAAGAGGCCAGAACGGACATTCTCT GCGATCTATATACATTGCCTGTATCCAGGAGGCTACACACCAGCAAACCGTGAAGGAGAATGG GCTCAATGTAACCCAGAGCCCACCATATAGTTTTATAGGTGCTCAACTTTCTATATCGCTATT 

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# FIGURE 480

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA92256

><subunit 1 of 1, 248 aa, 1 stop

><MW: 28310, pI: 4.63, NX(S/T): 0

MGPVRLGILLFLFLAVHEAWAGMLKEEDDDTERLPSKCEVCKLLSTELQAELSRTGRSREVLE LGQVLDTGKRKRHVPYSVSETRLEEALENLCERILDYSVHAERKGSLRYAKGQSQTMATLKGL VQKGVKVDLGIPLELWDEPSVEVTYLKKQCETMLEEFEDIVGDWYFHHQEQPLQNFLCEGHVL PAAETACLQETWTGKEITDGEEKTEGEEEQEEEEEEEEEGGDKMTKTGSHPKLDREDL

#### Important features of the protein:

Signal peptide:

amino acids 1-21

cAMP- and cGMP-dependent protein kinase phosphorylation site. amino acids 106-110

N-myristoylation site.

amino acids 115-121

Amidation site.

amino acids 70-74

## FIGURE 481

GGCGTGTGCAAGGCGGGGTCCGGCCCGCGCAGGTCGGGTAAGCGCGTCTAGGGCGCTGCGCGG CGCAGCGAAAAATGGCGGCTTCCAGGTGGGCGCGCAAGGCCGTGGTCCTGCTTTGTGCCTCTGA CCTGCTGCTGCTGCTACTGCTACCACCGCCTGGGTCCTGCGCGGCCGAAGGCTCGCCCGG GACGCCCGACGAGTCTACCCCACCTCCCCGGAAGAAGAAGAAGAAGATATTCGCGATTACAATGA TGCAGACATGGCGCGTCTTCTGGAGCAATGGGAGAAAGATGATGACATTGAAGAAGGAGATCT AAGCATATTGAAAATGACGAAAAAAGGGAAGACTCTCATGATGTTTGTCACTGTATCAGGAAG CCCTACTGAGAAGGAGACAGAGGAAATTACGAGCCTCTGGCAGGGCAGCCTTTTCAATGCCAA CTATGACGTCCAGAGGTTCATTGTGGGGATCAGACCGTGCTATCTTCATGCTTCGCGATGGGAG CTACGCCTGGGAGATCAAGGACTTTTTTGGTCGGTCAAGACAGGTGTGCTGATGTAACTCTGGA GGGCAAAAAAAAGAAGGAAGGAGGATCTGAAATCTCGGTCTTCCAAGGAAGAAATCGAGCTGG GAATAAAAGAGAAGACCTG**TGA**TGGGGGCAGCAGTGACGCGCTGTGGGGGGGACAGGTGGACGTG GAGAGCTCTTTGCCCAGCTCCTGGGGTGGGAGTGGTCTCAGGCAACTGCACACCGGATGACAT TCTAGTGTCTTCTAGAAAGGGTCTGCCACATGACCAGTTTGTGGTCAAAGAATTACTGCTTAA TAGGCTTCAAGTAAGAAGACAGATGTTTTCTAATTAATACTGGACACTGACAAATTCATGTTT ACTATAAAATCTCCTTACATGGAAATGTGACTGTGTTGCTTTTTTCCCATTTACACTTGGTGAG TCATCAACTCTACTGAGATTCCACTCCCCTCCAAGCACCTGCTGTGATTGGGTGGCCTGCTCT GATCAGATAGCAAATTCTGATCAGAGAAGACTTTAAAACTCTTGACTTAATTGAGTAAACTCT TCATGCCATATACATCATTTTCATTATGTTAAAGGTAAAATATGCTTTGTGAACTCAGATGTC TGTAGCCAGGAAGCCAGGGTGTGTAAATCCAAAATCTATGCAGGAAATGCGGAGAATAGAAAA TATGTCACTTGAAATCCTAAGTAGTTTTGAATTTCTTTGACTTGAATCTTACTCATCAGTAAG AGAACTCTTGGTGTCTGTCAGGTTTTATGTGGTCTGTAAAGTTAGGGGGTTCTGTTTTGTTTCC TTATTTAGGAAAGAGTACTGCTGGTGTCGAGGGGTTATATGTTCCATTTAATGTGACAGTTTT AAAGGATTTAAGTAGGGAATCAGAGTCCTTTGCAGAGTGTGACAGACGACTCAATAACCTCAT TIGTTTCTAAACATTTTTCTTTGATAAAGTGCCTAAATCTGTGCTTTCGTATAGAGTAACATG ATGTGCTACTGTTGATGTCTGATTTTGCCGTTCATGTTAGAGCCTACTGTGAATAAGAGTTAG AACATTTATATACAGATGTCATTTCTAAGAACTAAAATTCTTTGGGAAAAACCCTCAAAAAA AAAAAAAAAAAAAAAAAAA

## FIGURE 482

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA92289

><subunit 1 of 1, 234 aa, 1 stop

><MW: 26077, pI: 8.13, NX(S/T): 1

MAASRWARKAVVLLCASDLLLLLLLLPPPGSCAAEGSPGTPDESTPPPRKKKKDIRDYND ADMARLLEQWEKDDDIEEGDLPEHKRPSAPVDFSKIDPSKPESILKMTKKGKTLMMFVTV SGSPTEKETEEITSLWQGSLFNANYDVQRFIVGSDRAIFMLRDGSYAWEIKDFLVGQDRC ADVTLEGQVYPGKGGGSKEKNKTKQDKGKKKKEGDLKSRSSKEENRAGNKREDL

### Important features of the protein:

Signal peptide:

Amino acids 1-32

#### N-glycosylation site:

Amino acids 201-205

# cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 85-89

#### Tyrosine kinase phosphorylation site:

Amino acids 50-59

### N-myristoylation sites:

Amino acids 30-36;138-

30-36;138-144;153-159;176-182

#### Amidation site:

Amino acids 207-211

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# FIGURE 483

GTTGCTCCGGCGCGCTCGGGGAGGGAGCCAGCCAGCCTAGGCCCTAGGCCCCGGGCCACC<u>ATG</u>G CGCTGCCTCCAGGCCCAGCCGCCCTCCGGCACACACTGCTGCTCCTGCCAGCCCTTCTGAGCT CAGGTTGGGGGGAGTTGGAGCCACAAATAGATGGTCAGACCTGGGCTGAGCGGGCACTTCGGG AGAATGAACGCCACGCCTTCACCTGCCGGGTGGCAGGGGGGCCTGGCACCCCCAGATTGGCCT CCTTCTCTGGAGGCACCAGCACCTTCACTGTCACTGCCCATCGGGCCCAGCATGAGCTCAACT GCTCTCTGCAGGACCCCAGAAGTGGCCGATCAGCCAACGCCTCTGTCATCCTTAATGTGCAAT TCAAGCCAGAGATTGCCCAAGTCGGCGCCAAGTACCAGGAAGCTCAGGGCCCAGGCCTCCTGG TTGTCCTGTTTGCCCTGGTGCGTGCCAACCCGCCGGCCAATGTCACCTGGATCGACCAGGATG GGCCAGTGACTGTCAACACCTCTGACTTCCTGGTGCTGGATGCGCAGAACTACCCCTGGCTCA CCAACCACACGGTGCAGCTGCAGCTCCGCAGCCTGGCACACAACCTCTCGGTGGTGGCCACCA ATGACGTGGGTGTCACCAGTGCGTCGCTTCCAGCCCCAGGCCCCTCCCGGCACCCATCTCTGA TATCAAGTGACTCCAACAACCTAAAACTCAACAACGTGCGCCTGCCACGGGAGAACATGTCCC TCCCGTCCAACCTTCAGCTCAATGACCTCACTCCAGATTCCAGAGCAGTGAAACCAGCAGACC GGCAGATGGCTCAGAACAACAGCCGGCCAGAGCTTCTGGACCCGGAGCCCGGCGGCCTCCTCA GTGATGAGATCTGGCTCTGAGCCGAGGGCGAGACAGGAGTATTCTCTTTGGCCTCTGGACACCC TCCCATTCCTCCAAGGCATCCTCTACCTAGCTAGGTCACCAACGTGAAGAAGTTATGCCACTG CCACTTTTGCTTGCCCTCCTGGCTGGGGTGCCCTCCATGTCATGCACGTGATGCATTTCACTG GGCTGTAACCCGCAGGGCACAGGTATCTTTGGCAAGGCTACCAGTTGGACGTAAGCCCCTCA TGCTGACTCAGGGTGGGCCCTGCATGTGATGACTGGGCCCTTCCAGAGGGAGCTCTTTGGCCA GGGGTGTTCAGATGTCATCCAGCATCCAAGTGTGGCATGGCCTGCTGTATACCCCACCCCAGT GCATGGATTTTCCTCCTTCCTATGCTATGTAGCCTTGTTCCCTCAGGTAAAATTTAGGACCCT CCAAGCACAAACGTCCTTTTTGCTGCACACGTCTCTGCCCTTCACTTCTTCTCTTCTGTCCCC ACCTCCTCTTGGGAATTCTAGGTTACACGTTGGACCTTCTCTACTACTTCACTGGGCACTAGA CTTTTCTATTGGCCTGTGCCATCGCCCAGTATTAGCACAAGTTAGGGAAGAGAAGAGCCAGGCGA TGAGTCTAGTAGCACCCAGGACGGCTTGTAGCTATGCATCATTTTCCTACGGCGTTAGCACTT TAAGCACATCCCCTAGGGGAGGGGGTGAGTGAGGGGCCCAGAGCCCTCTTTGTGGCTTCCCCA CGTTTGGCCTTCTGGGATTCACTGTGAGTGTCCTGAGCTCTCGGGGGTTGATGGTTTTTCTCTC AGCATGTCTCCTCCACCACGGGACCCCAGCCCTGACCAACCCATGGTTGCCTCATCAGCAGGA AGGTGCCCTTCCTGGAGGATGGTCGCCACAGGCACATAATTCAACAGTGTGGAAGCTTTAGGG GAACATGGAGAAAGAAGGAGACCACATACCCCAAAGTGACCTAAGAACACTTTAAAAAGCAAC ATGTAAATGATTGGAAATTAATATAGTACAGAATATATTTTTCCCTTGTTGAGATCTTCTTTT GTAATGTTTTCATGTTACTGCCTAGGGCGGTGCTGAGCACACAGCAAGTTTAATAAACTTGA 

# FIGURE 484

MALPPGPAALRHTLLLLPALLSSGWGELEPQIDGQTWAERALRENERHAFTCRVAGGPGTPRL AWYLDGQLQEASTSRLLSVGGEAFSGGTSTFTVTAHRAQHELNCSLQDPRSGRSANASVILNV QFKPEIAQVGAKYQEAQGPGLLVVLFALVRANPPANVTWIDQDGPVTVNTSDFLVLDAQNYPW LTNHTVQLQLRSLAHNLSVVATNDVGVTSASLPAPGPSRHPSLISSDSNNLKLNNVRLPRENM SLPSNLQLNDLTPDSRAVKPADRQMAQNNSRPELLDPEPGGLLTSQGFIRLPVLGYIYRVSSV SSDEIWL

#### N-glycosylation sites:

amino acids 106-110, 119-123, 162-166, 175-179, 192-196, 205-209, 251-255, 280-284

#### Glycosaminoglycan attachment site:

amino acids 23-27

## Casein kinase II phosphorylation sites:

amino acids 36-40, 108-112, 164-168, 282-286, 316-320

### N-myristoylation sites:

amino acids 34-40, 89-95, 215-221, 292-298, 293-299

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# FIGURE 485

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# FIGURE 486

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96855
><subunit 1 of 1, 84 aa, 1 stop
><MW: 9274, pI: 9.70, NX(S/T): 1
MALLWWISTVAILLFTSTILGTYVEAGAAKSNEEEIVNKSEFGRFPRGSRKDASGCHKPG
YPVPPHSRCPPPPHVQRPRPILHA

#### Signal peptide:

Amino acids 1-21

# N-glycosylation site:

Amino acids 38-42

## N-myristoylation site:

Amino acids 27-33

# FIGURE 487

# FIGURE 488

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96857

><subunit 1 of 1, 221 aa, 1 stop

><MW: 23598, pI: 6.96, NX(S/T): 0

MWSAGRGGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYGSG SGQQSVTGVEASDDANSYWRIRGGSEGGCPRGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSN NQEVSAFGEDGEGDDLDLWTVRCSGQHWEREAAVRFQHVGTSVFLSVTGEQYGSPIRGQHEVH GMPSANTHNTWKAMEGIFIKPSVEPSAGHDEL

# Important features of the protein:

Signal peptide:

amino acids 1-28

Glycosaminoglycan attachment site.

amino acids 62-66

### N-myristoylation sites.

amino acids 16-22, 25-31, 27-33, 61-67, 71-77, 86-92, 87-93, 91-97, 190-196

Endoplasmic reticulum targeting sequence.

amino acids 218-223

## FIGURE 489

CAGCAGCCGAGACAGCTGAGACGGCAGCGGCAGCTTCTCAGGGCCGGAGCCAGTTCTTGGAGGAGACTCTGC ACAGGGCATGGATCACTGTGGTGCCCTTTTCCTGTGCCTGTGCCTTCTGACTTTGCAGAATGCAACAACAGAGAC ATGGGAAGAACTCCTGAGCTACATGGAGAATATGCAGGTGTCCAGGGGCCCGGAGCTCAGTTTTTTCCTCTCGTCA CCAGTCTCTGGCCTTCAAGCTGAGCTGTGACTTCTCTGGCCTCTCGCTGACCAGTGCCACTCTGAAGCGGGTGCC CCAGGCAGGAGGTCAGCATGCCCGGGGGTCAGCACGCCATGCAGTTCCCCGCCGAGCTGACCCGGGGACGCCTGCAA GACCCGCCCCAGGGAGCTGCGGCTCATCTGTATCTACTTCTCCAACACCCCACTTTTTCAAGGATGAAAACAACTC ATCTCTGCTGAATAACTACGTCCTGGGGGCCCCAGCTGAGTCATGGGCACGTGAACAACCTCAGGGATCCTGTGAA ACAGCCCTGGGGGGGCTGAGGGCCTGTCGTACAGAGCAGCCCTCCCACTCTCAGGTGCTCTGCCGCTG CAACCACCTCACCTACTTTGCTGTTCTCATGCAACTCTCCCCAGCCCTGGTCCCTGCAGAGTTGCTGGCACCTCT TACGTACATCTCCCTCGTGGGCTGCAGCATCTCCATCGTGGCCTCGCTGATCACAGTCCTGCTGCACTTCCATTT CAGGAAGCAGAGTGACTCCTTAACACGTATCCACATGAACCTGCATGCCTCCGTGCTGCTCCTGAACATCGCCTT CCTGCTGAGCCCCGCATTCGCAATGTCTCCTGTGCCCGGGTCAGCATGCACGGCTCTGGCCCGCTGCCCTGCACTA CGCGCTGCTCAGCTGCCTCACCTGGATGGCCATCGAGGGCTTCAACCTCTACCTCCTCCTCGGGCGTGTCTACAA CATCTACATCCGCAGATATGTGTTCAAGCTTGGTGTGCTAGGCTGGGGGGGCCCCAGCCCTCCTGGTGCTGCTTTC CCTCTCTGTCAAGAGCTCGGTATACGGACCCTGCACAATCCCCGTCTTCGACAGCTGGGAGAATGGCACAGGCTT CCAGAACATGTCCATATGCTGGGTGCGGAGCCCCGTGGTGCACAGTGTCCTGGTCATGGGCTACGGCGGCCTCAC AAGTGTCAGGGCCTGCCATGACACTGTCACTGTGCTGGGCCTCACCGTGCTGCTGGGAACCACCTGGGCCTTGGC CTTCTTTTCTTTTGGCGTCTTCCTGCTGCCCCAGCTGTTCCTCTTCACCATCTTAAACTCGCTGTACGGTTTCTT CCTTTCCTGTGGTTCTGCTCCCAGCGGTGCCGCTCAGAAGCAGAGGCCAAGGCACAGATAGAGGCCTTCAGCTC CTCCCAAACACACAG<u>TAG</u>TCCGGGCCTCCTGGCCTGGAATCCTCAGCCTCTCTGGCCGCCAGTAGCCTGAGGCT ACGGCTCCTGCTAGAGAGGGTGGCAGGCCTGCTGCTGGACCCCAGAGGCCACTGTGACCGCCAAGGGGCCTTTTC CACTTCCACGGCCTCTCCAGGCACTGAGGGGAAGGCATTGCTCTACCTCTCCCTGACATTTTGCTCCGGGGCAGA TCCAACCTTACCTGGGCCAGCAAACTTTGTCCTGGTACCTGGGCCCAGCTCGCCAGGGATGTGGGCAGAGCACCA ACAGACCCTAGGTATCCACAGCTGTGACATGGGGGGCAAGCAGCTTTGTTTCAGCCTAACCCAGGAGCTTAGTAAA AGGATCTCATTCAGGCTGCCCTGGAAGCACCTGCTTGGCCCTGCCACCTTCCTCCAGGGGAGGGCCAGATGGCAT CCTGGCTTGGGGCGGGGGGCCTACCCAGGCTCTGAGACTTTACTGGCCTATGCCTGAGGCCTCTTTTCCTTTA ACTCCCTAAATTATGATGACTCCAAGTCCAAGCCCACCCTTCCCAAAGATTGGGAGGTTCCGCCGTTCCCAGAGG CTCCTCCTGCGGTGCTCCCAAGACTTCCATAGACCATCTGGACCAGTAGCCCATCCCGCAGTTTTCTTGGGGGCCA GAGGAAAACGCTTCTTTCTCCTCCAGCTGAATCAGCTGGATCCCAGTGTCCTGGCTGTTTGGTGATTGGGCAAGA TTGAATTTGCCCAGGTAGGCGTGAGAGTGTGGGTTTTAAATTCGAAGCTCAGGCCATAGTTTCAGAGAATCACCC GTCCACACTCAGAGGCCCTTGGCGCCAAGACTGCATCTAGAATCGCTCAAACACCTGTTTGCAGACCCCATGCAC CAGCTGGAGGGGCCGTAACTGCAGGACTGCGCCTACTGAGTGACCCATTTCCTCCAGGAGGAAAGGCAAGACACG CTTACACGGCCATTTGTCTCTTTTCCCAATGCGGCGGTGCACTTTCGCTCTTGGGGGGCTGCACCCCAGACATAGC TGGCACCAGAGCAGGGTGCTCAGGTGGTGGTGCTCAGGGCCCTGCCCCAGGCCACTGGGCCGTTTTGATGACCT CAAAGGTCACAGGCAGAAAATAGGAGCAGGATTTCCCCTGGGGAAAAGTTATCCTGGGACATCTTCTGCTCTTCT CCAATGCCAGCTCTGCCACTTGCTAGCTGTGAGACTGTGGACAAACCACTCAGCCTCTGTGTGCCTCAGTTTTCC TATTTGTAAAATAGAGACCATAGTGGTACCTATTTTGAAGACTAAGTAAAAGAATTCAAATAAAGAGACTTGGCA CAGAGTAAGTGCTCAGTAAAAA

## FIGURE 490

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96860

><subunit 1 of 1, 528 aa, 1 stop

><MW: 59000, pI: 8.73, NX(S/T): 9

MDHCGALFLCLCLTLQNATTETWEELLSYMENMQVSRGRSSVFSSRQLHQLEQMLLNTS FPGYNLTLQTPTIQSLAFKLSCDFSGLSLTSATLKRVPQAGGQHARGQHAMQFPAELTRD ACKTRPRELRLICIYFSNTHFFKDENNSSLLNNYVLGAQLSHGHVNNLRDPVNISFWHNQ SLEGYTLTCVFWKEGARKQPWGGWSPEGCRTEQPSHSQVLCRCNHLTYFAVLMQLSPALV PAELLAPLTYISLVGCSISIVASLITVLLHFHFRKQSDSLTRIHMNLHASVLLLNIAFLL SPAFAMSPVPGSACTALAAALHYALLSCLTWMAIEGFNLYLLLGRVYNIYIRRYVFKLGV LGWGAPALLVLLSLSVKSSVYGPCTIPVFDSWENGTGFQNMSICWVRSPVVHSVLVMGYG GLTSLFNLVVLAWALWTLRRLRERADAPSVRACHDTVTVLGLTVLLGTTWALAFFSFGVF LLPQLFLFTILNSLYGFFLFLWFCSQRCRSEAEAKAQIEAFSSSQTTQ

### Important features of the protein:

## Signal peptide:

Amino acids 1-21

#### Transmembrane domains:

Amino acids

244-264;290-309;316-344;358-376;411-431;468-491

#### N-glycosylation sites:

Amino acids

18-22;58-62;65-69;146-150;147-151;173-177;

179-183;394-398;400-404

#### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 274-278

#### N-myristoylation sites:

86 GLSLTS

101 GGQHAR

157 GAQLSH

255 GCSISI

311 GSACTA

420 GGLTSL

467 GTTWAL

### Prokaryotic membrane lipoprotein lipid attachment sites:

Amino acids 246-257;318-329

# Eukaryotic thiol (cysteine) proteases histidine active site:

Amino acids 410-421

## G-protein coupled receptors family 2 proteins:

Amino acids

273-302;314-343

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## FIGURE 491

CTTGGCTGCCCGACAACAAGCTCGCCACCTGCGCTGGGCGCATCCACCATCCAAGGCCCAGCT GAGGGCACCAGACAGAGGAGAGAGAGAGAGAGAGAGACATTTC CATGGACATCCTCATGCTGCTTCTGCTTTTGTGTGTAATATATGGGAGATTTTCCCAAGATGA ATACTCCCTCAATCAAGCTATCCGGAAAGAATTTACAAGAAATGCCAGAAACTGCTTGGGTGG CCTGAGAAACATCGCTGACTGGGGGACTGGAGTCTGACCACACTTCTGGATGGCCTGTACCC GGGAGGCACCCCGTCAGCCCGTGTGCCGGGGGCTCAGCCTGGAGCTCTTGGAGGAAAATGCTA CCTAATAGGCAGTTCCGTAATTAGGCAGCTAAAAGTTTTTCCTAGGCATTTATGCAAGCCTCC CAGGCCATTTTCAGCACTCATCGAAGACTCTATTCCTACATGTAGTCCCGAAGTTGGAGGCCC TGAGAACCCCTACCTGATAGACCCAGAGAACCAAAACGTGACCCTGAATGGTCCTGGGGGCTG TGGGACAAGGGAGGACTGTGTGCTCAGCCTGGGCAGAACAAGGACTGAAGCCCACACAGCCCT GTCCCGACTCAGGGCCAGCATGTGGATTGACCGCAGCACCAGGGCTGTGTCTGTGCACTTCAC TCTCTATAACCCTCCAACCCAACTCTTCACCAGCGTGTCCCTGAGAGTGGAGATCCTCCCTAC GGGGAGTCTCGTCCCTCATCCCTGGTGGAGTCATTCAGCATCTTCCGCAGCGACTCAGCCCT GCAGTACCACCTCATGCTTCCCCAGCTGGTCTTCCTGGCACTCAGCCTGATCCACCTCTGTGT TCAACTCTACCGTATGATGGACAAGGGCGTCCTCAGCTACTGGCGAAAGCCAAGGAACTGGCT GGAGGTAGCCTCTCTTGTGTCATTTTCTTTTGAAAAATAACAATAAACTGTTTATATCTTGAA AAAATAATTAAATAAGAAATTGATTATGCACTAGCTACTGCCAACATTATTGCAGTTTTCTC CCTCTGTAGTGTTAATCTCAAAACAGCATTTGAGATCAGGTATCATTTAGTGTTGTTACAGTT ACCGTCATGTACCACGAATTTCAGCCAAGGTGGTGGTCCCATAAGATCATATGGTGCTAAG CTGTTTGTATCTTAGCTTTTAATAAAGAAGTTTAAAAAATAAAAAA

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# FIGURE 492

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96861

><subunit 1 of 1, 300 aa, 1 stop

><MW: 33649, pI: 9.26, NX(S/T): 1

MRRESRTRAALRDISMDILMLLLLLCVIYGRFSQDEYSLNQAIRKEFTRNARNCLGGLRN IADWWDWSLTTLLDGLYPGGTPSARVPGAQPGALGGKCYLIGSSVIRQLKVFPRHLCKPP RPFSALIEDSIPTCSPEVGGPENPYLIDPENQNVTLNGPGGCGTREDCVLSLGRTRTEAH TALSRLRASMWIDRSTRAVSVHFTLYNPPTQLFTSVSLRVEILPTGSLVPSSLVESFSIF RSDSALQYHLMLPQLVFLALSLIHLCVQLYRMMDKGVLSYWRKPRNWLEVASLVSFSFEK

#### Important features of the protein:

Signal peptide:

Amino acids 1-30

#### Transmembrane domain:

Amino acids 250-267

#### N-glycosylation site:

Amino acids 153-157

#### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 2-6

#### N-myristoylation sites:

Amino acids 56-62;75-81;79-85;80-86;88-94;92-98;160-166

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## FIGURE 493

TCTCAGGGCTTCATACAGGAAATCTATTGCTGTGTCAAGTTCCAGAGAAAAGCTTCTGTTCGT CCCACTGTTGATGGGGTAAGAGGATCCTGTACTGAGAAGTTGACCAGAGAGGGTCTCACCATG CGCACAGTTCCTTCTGTACCTGTGTGGAGGAAAAGTACTGAGTGAAGGGCAGAAAAAGAGAAA ACAGAAATGCTCTGCCCTTGGAGAACTGCTAACCTAGGGCTACTGTTGATTTTGACTATCTTC TTAGTGGCCGAAGCGGAGGGTGCTGCTCAACCAAACAACTCATTAATGCTGCAAACTAGCAAG GAGAATCATGCTTTAGCTTCAAGCAGTTTATGTATGGATGAAAAACAGATTACACAGAACTAC TCGAAAGTACTCGCAGAAGTTAACACTTCATGGCCTGTAAAGATGGCTACAAATGCTGTGCTT TGTTGCCCTCCTATCGCATTAAGAAATTTGATCATAATAACATGGGAAATAATCCTGAGAGGC CAGCCTTCCTGCACAAAAGCCTACAGGAAAGAAACAAATGAGACCAAGGAAACCAACTGTACT GATGAGAGAATAACCTGGGTCTCCAGACCTGATCAGAATTCGGACCTTCAGATTCGTCCAGTG GCCATCACTCATGACGGGTATTACAGATGCATAATGGTAACACCTGATGGGAATTTCCATCGT GGATATCACCTCCAAGTGTTAGTTACACCTGAACTGACCCTGTTTCAAAACAGGAATAGAACT GCAGTATGCAAGGCAGTTGCAGGGAAGCCAGCTGCGCAGATCTCCTGGATCCCAGAGGGCGAT TGTGCCACTAAGCAAGAATACTGGAGCAATGGCACAGTGACTGTTAAGAGTACATGCCACTGG GAGGTCCACAATGTGTCTACCGTGACCTGCCACGTCTCCCATTTGACTGGCAACAAGAGTCTG ATCCTTACTATTATTTTTGACCATCGTGGGATTCATTTGGTTGTTGAAAGTCAATGGCTGC AGAAAATATAAATTGAATAAAACAGAATCTACTCCAGTTGTTGAGGAGGATGAAATGCAGCCC CAGGCATTACAAAGTGAAGTTGACACAGACCTCCATACTTTATAAGTTGTTGGACTCTAGTAC CAAGAAACAACAACAACGAGATACATTATAATTACTGTCTGATTTTCTTACAGTTCTAGAAT GAAGACTTATATTGAAATTAGGTTTTCCAAGGTTCTTAGAAGACATTTTAATGGATTCTCATT CATACCCTTGTATAATTGGAATTTTTGATTCTTAGCTGCTACCAGCTAGTTCTCTGAAGAACT GATGTTATTACAAAGAAAATACATGCCCATGACCAAATATTCAAATTGTGCAGGACAGTAAAT AATGAAAACCAAATTTCCTCAAGAAATAACTGAAGAAGGAGCAAGTGTGAACAGTTTCTTGTG TATCCTTTCAGAATATTTTAATGTACATATGACATGTGTATATGCCTATGGTATATGTGTCAA TTTATGTGTCCCCTTACATATACATGCACATATCTTTGTCAAGGCACCAGTGGGAACAATACA CTGCATTACTGTTCTATACATATGAAAACCTAATAATATAAGTCTTAGAGATCATTTTATATC ATGACAAGTAGAGCTACCTCATTCTTTTTAATGGTTATATAAAATTCCATTGTATAGTTATAT CATTATTTAATTAAAAACAACCCTAATGATGGATATTTAGATTCTTTTAAGTTTTTGTTTATTT CTTTTAAGTTTTGTTGTGGTATAAACAATACCACATAGAATGTTTCTTGTTCATATATCTCT TTGTTTTTGAGTATATCTGTAGGATAACTTTCTTGAGTGGAATTGTCAGGTCAAAGGGTTTGT GCATTTTACTATTGATATATATGTTAAATTGTGTCAAATATATGTCAAATTCCCTCCAACA TTGTTTAAATGTGCCTTTCCCTAAATTTCTATTTTAATAACTGTACTATTCCTGCTTCTACAG TTGCCACTTTCTCTTTTTAATCAACCAGATTAAATATGATGTGAGATTATAATAAGAATTATA CTATTTAATAAAAATGGATTTATA

# FIGURE 494

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96866

><subunit 1 of 1, 348 aa, 1 stop

><MW: 39069, pI: 8.13, NX(S/T): 10

MLCPWRTANLGLLLILTIFLVAEAEGAAQPNNSLMLQTSKENHALASSSLCMDEKQITQN YSKVLAEVNTSWPVKMATNAVLCCPPIALRNLIIITWEIILRGQPSCTKAYRKETNETKE TNCTDERITWVSRPDQNSDLQIRPVAITHDGYYRCIMVTPDGNFHRGYHLQVLVTPELTL FQNRNRTAVCKAVAGKPAAQISWIPEGDCATKQEYWSNGTVTVKSTCHWEVHNVSTVTCH VSHLTGNKSLYIELLPVPGAKKSAKLYIPYIILTIIILTIVGFIWLLKVNGCRKYKLNKT ESTPVVEEDEMQPYASYTEKNNPLYDTTNKVKASQALQSEVDTDLHTL

### Important features of the protein:

Signal peptide:

Amino acids 1-24

#### Transmembrane domains:

Amino acids 78-98;267-286

#### N-glycosylation sites:

Amino acids 31-35

31-35;60-64;69-73;116-120;122-126;185-189;

218-222;233-237;247-251;298-302

## cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 112-116

#### N-myristoylation sites:

Amino acids 103-109;259-265

#### 499/615

# FIGURE 495

CCAGGTGCACAGCGCATCGCCCGAGGCTGTCACCGCCCTGCCCCGCCCACCCCAGCTGTCCTG GACCCAGGGGCAGGAGAGGCTGGACGCCAGGTGCGCGGACACAGAAGCGTCTAAGCACAGCT TCCTCCTTGCCGCTCCGGGAAGTGGGCAGCCAGCCCAGGAACCAGTACCACCTGCACCATGGG GCTGTCCCGGAAGGAGCAGGTCTTCTTGGCCCTGCTGGGGGGCCTCGGGGGGTCTCAGGCCTCAC GGCACTCATTCTCCTCCTGGTGGAGGCCACCAGCGTGCTCCTGCCCACAGACATCAAGTTTGG GATCGTGTTTGATGCGGGCTCCTCCCACACGTCCCTCTTCCTGTATCAGTGGCCGGCGAACAA GGAGAATGGCACGGGTGTGGTCAGCCAGGCCCTGGCCTGCCAGGTGGAAGGGCCTGGAATCTC CTCCTACACTTCTAATGCTGCACAGGCTGGTGAGAGCCTGCAGGGCTGCTTGGAGGAGGCGCT GGTGCTGATCCCAGAGGCCCAGCATCGGAAAACACCCACGTTCCTGGGGGCCCACGGCTGGCAT GAGGTTGCTCAGCCGGAAGAACAGCTCTCAGGCCAGGGACATCTTTGCAGCAGTCACCCAGGT CCTGGGCCGGTCTCCCGTGGACTTTTGGGGTGCCGAGCTCCTGGCCGGGCAGGCCGAAGGTGC CTTTGGTTGGATCACTGTCAACTACGGCTTGGGGACGCTGGTCAAGTACTCCTTCACTGGAGA ATGGATCCAGCCTCCGGAGGAGATGCTGGTGGGTGCCCTGGACATGGGAGGGGCCTCCACCCA GATCACGTTCGTGCCTGGGGGCCCCCATCTTGGACAAGAGCACCCAGGCCGATTTTCGCCTCTA CGGCTCCGACTACAGCGTCTACACTCACAGCTACCTGTGCTTTGGACGGGACCAGATGCTGAG CAGGCTCCTCGTGGGGCTGCTGCAGAGCCGCCCGGCTGCCCTGCTCCGTCACCCGTGCTACCT CAGCGGCTACCAGACCACACTGGCCCTGGGCCCGCTGTATGAGTCACCCTGTGTCCACGCCAC GCCCCGCTGAGCCTCCCCCAGAACCTCACAGTTGAAGGGACAGGCAACCCTGGAGCCTGCGT CTCAGCCATCCGGGAACTTTTCAACTTCTCCAGCTGCCAGGGCCCAGGAGGACTGCGCCTTTGA CGGGGTCTACCAGCCCCGCTGCGGGGCCAGTTCTATGTGGAGGCCAGCTACCCTGGGCAGGA CCGCTGGCTGCGGGACTACTGTGCCTCAGGCCTGTACATCCTCACCCTCCTGCACGAGGGCTAC GGCTGGACACTGGGCTACATGCTGAACCTGACCGGGATGATCCCGGCCGATGCGCCGGCTCAG TGGCGGGCAGAGAGCTACGGCGTCTGGGTGGCCAAAGTGGTGTTCATGGTGCTGGCCCTGGTG GCGGTGGTGGGGGCTGCCTTGGTCCAGCTCTTCTGGTTGCAGGAC<u>TAG</u>TGGGAAGGCGGAGGT GGGCCCCACAGAGCCCACAGGCAGCTGCGTCCCGGATGCTGGAGGCTTCCTGAGCCCTGAGC GCCGTGGGGCCTTGCTCTGTGGCTCTGCCCACGGTCAGGTGACAGCCACCTCCAGGGCACCGT TTCCGCAACTGGGCTTCCAGGGCCGTAGGTGCCTTTCTGCACACAGGCCGCCAGGACTCGTGG GGGCTTCTGCTGGGCCAGCCCGGCCTCCCACACCCACTTGGAGGGTGAGACTGCAGTGGGGGT 

#### 500/615

# FIGURE 496

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96870

><subunit 1 of 1, 458 aa, 1 stop

><MW: 49377, pI: 4.98, NX(S/T): 5

MGLSRKEQVFLALLGASGVSGLTALILLLVEATSVLLPTDIKFGIVFDAGSSHTSLFLYQ WPANKENGTGVVSQALACQVEGPGISSYTSNAAQAGESLQGCLEEALVLIPEAQHRKTPT FLGATAGMRLLSRKNSSQARDIFAAVTQVLGRSPVDFWGAELLAGQAEGAFGWITVNYGL GTLVKYSFTGEWIQPPEEMLVGALDMGGASTQITFVPGGPILDKSTQADFRLYGSDYSVY THSYLCFGRDQMLSRLLVGLVQSRPAALLRHPCYLSGYQTTLALGPLYESPCVHATPPLS LPQNLTVEGTGNPGACVSAIRELFNFSSCQGQEDCAFDGVYQPPLRGQFYVEASYPGQDR WLRDYCASGLYILTLLHEGYGFSEETWPSLEFRKQAGGVDIGWTLGYMLNLTGMIPADAP AQWRAESYGVWVAKVVFMVLALVAVVGAALVQLFWLQD

### Important features of the protein:

133-137

Signal peptide:

Amino acids 1-2

#### Transmembrane domain:

Amino acids 428-449

#### N-glycosylation sites:

Amino acids

67-71;135-139;304-308;325-329;410-414

#### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids

#### N-myristoylation sites:

Amino acids

50-56;123-127;165-171;207-213;234-240; 259-265;311-317;314-320;331-337;398-404; 413-419;429-435

## GDA1/CD39 family of nucleoside phosphatases proteins:

Amino acids 43-59;202-215

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## FIGURE 497

GCCTTATAAAGTAGCCTCTGCATCTGCCTGCCTCGGGCAGAGGAGGGCTACCCTGGGGCTGAG AGTTCACCTGTCTCAGGAACCACCTGAGCCCACAGATCCTGTGGGCAGCGGCCAGGGCAGCCA **TG**GCTTGGGCAAGTAGGCTGGGCCTGCTGCTGCACTGCTGCCCGTGGTCGGTGCCTCCA CGCCAGGCACCGTGGTCCGACTCAACAAGGCAGCATTGAGCTACGTGTCTGAAATTGGGAAAG CCCCTCTCCAGCGGGCCCTGCAGGTCACTGTCCCTCATTTCCTGGACTGGAGTGGAGAGGCGC TTCAGCCCACCAGGATCCGGATTCTGAATGTCCATGTGCCCCCGCCTCCACCTGAAATTCATTG CTGGTTTCGGAGTGCGCCTGCTGGCAGCAGCTAATTTTACTTTCAAGGTCTTTCGCGCCCCAG AGCCCCTGGAGCTGACGCTGTGGAACTGCTGGCTGACACCCGCGTGACCCAGAGCTCCA TCAGGACCCCTGTGGTCAGCATCTCTGCCTGCTCTTTATTCTCGGGCCACGCCAACGAGTTTG ATGGCAGTAACAGCACCTCCCACGCGCTGCTGGTCCTGGTGCAGAAGCACATTAAAGCTGTCT TGAGTAACAAGCTGTGCCTGAGCATCTCCAACCTGGTGCAGGGTGTCAATGTCCACCTGGGCA CCTTAATTGGCCTCAACCCCGTGGGTCCTGAGTCCCAGATCCGCTATTCCATGGTCAGTGTGC CCACTGTCACCAGTGACTACATTTCCCTGGAAGTCAATGCTGTTCTCTTCCTGCTGGGCAACC CCATCATCCTGCCCACGGATGCCACCCCTTTTGTGTTTGCCAAGGCATGTGGGTACCGAGGGCT CCATGGCCACCGTGGGCCTCTCCCAGCAGCTGTTTGACTCTGCGCTCCTGCTGCTGCAGAAGG CCGGTGCCCTCAACCTGGACATCACAGGGCAGCTGAGGTCGGATGACAACCTGCTGAACACCT CTGCTCTGGGCCGGCTCATCCCGGAGGTGGCCCGCCAGTTTCCCGAGCCCATGCCTGTGGTGC TGCAGCCCTTCGTGGAGGTCCTGGCCACAGCCTCCAACTCGGCTTTCCAGTCCCTCTTCTCCC TGGATGTGGTAGTGAACTTGAGACTCCAGCTCTCTGTGTCCAAGGTGAAGCTTCAGGGGACCA CGTCTGTGCTGGGGGATGTCCAGCTCACGGTGGCCTCCTCCAACGTGGGCTTCATTGATACAGAT CAGGTGCGCACACTGATGGGCACCGTTTTTGAGAAGCCCCTGCTGGACCATCTCAATGCTCTC TTGGCCATGGGAATTGCCCTCCCTGGTGTGGTCAACCTCCACTATGTTGCCCCTGAGATCTTT GTCTATGAGGGCTACGTGGTGATATCCAGTGGACTCTTCTACCAGAGC<u>TGA</u>GGCAAGACCACT GGGAGGCCTGAGAGTGGGCCAGCTCGCTGCTCAGGCGAATTTCTCATTTCAAGCCACTGGGGA AACTGAGGCAAAACCATACTTAGTCATCACCAACAAGCTGGACTGCTTAGCTGGGCTGTTTTA TCTTCCCTGAGTGCCTGGGTCTCCCTCCCTCACTTCTGCCCTTTCCCTTCCTCCTCTCT CCTCCAGGCTGTATAGACCTGCCCTCTTGCATTAAACAACTTCTCTTGAGCTGC

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# FIGURE 498

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96872

><subunit 1 of 1, 458 aa, 1 stop

><MW: 49158, pI: 8.72, NX(S/T): 4

MAWASRLGLLLALLLPVVGASTPGTVVRLNKAALSYVSEIGKAPLQRALQVTVPHFLDWS GEALQPTRIRILNVHVPRLHLKFIAGFGVRLLAAANFTFKVFRAPEPLELTLPVELLADT RVTQSSIRTPVVSISACSLFSGHANEFDGSNSTSHALLVLVQKHIKAVLSNKLCLSISNL VQGVNVHLGTLIGLNPVGPESQIRYSMVSVPTVTSDYISLEVNAVLFLLGNPIILPTDAT PFVLPRHVGTEGSMATVGLSQQLFDSALLLLQKAGALNLDITGQLRSDDNLLNTSALGRL IPEVARQFPEPMPVVLKVRLGATPVAMLHTNNATLRLQPFVEVLATASNSAFQSLFSLDV VVNLRLQLSVSKVKLQGTTSVLGDVQLTVASSNVGFIDTDQVRTLMGTVFEKPLLDHLNA LLAMGIALPGVVNLHYVAPEIFVYEGYVVISSGLFYQS

#### Important features of the protein:

Signal peptide:

Amino acids 1-20

#### Transmembrane domain:

Amino acids 217-236

#### N-glycosylation sites:

Amino acids 96-100;151-155;293-297;332-336

#### N-myristoylation sites:

Amino acids 8-14;149-155;189-195;249-255;252-258;283-289

# LBP / BPI / CETP family proteins:

Amino acids 22-50; 251-287

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# FIGURE 499

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# FIGURE 500

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96878
><subunit 1 of 1, 125 aa, 1 stop
><MW: 13821, pI: 8.60, NX(S/T): 2
MKALMLLTLSVLLCWVSADIRCHSCYKVPVLGCVDRQSCRLEPGQQCLTTHAYLGKMWVFSNL
RCGTPEEPCQEAFNQTNRKLGLTYNTTCCNKDNCNSAGPRPTPALGLVFLTSLAGLGLWLLH

Important features of the protein: Signal peptide: amino acids 1-18

N-glycosylation sites. amino acids 77-81, 88-92

N-myristoylation site. amino acids 84-90

Ly-6 / u-PAR domain protein signature. amino acids 85-98

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# FIGURE 501

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# FIGURE 502

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96879

><subunit 1 of 1, 198 aa, 1 stop

><MW: 22584, pI: 9.40, NX(S/T): 1

MCAFPWLLLLLLQEGSQRRLWRWCGSEEVVAVLQESISLPLEIPPDEEVENIIWSSHKS LATVVPGKEGHPATIMVTNPHYQGQVSFLDPSYSLHISNLSWEDSGLYQAQVNLRTSQIS TMQQYNLCVYHPNYASEKPSTAFCLLAKGLLIFLLLVILAMGLWVIRVQKRHKMPRMKKL MRNRMKLRKEAKPGSSPA

# Important features of the protein:

Signal peptide:

Amino acids 1-18

#### Transmembrane domain:

Amino acids 144-165

#### N-glycosylation site:

Amino acids 99-103

## N-myristoylation site:

Amino acids 106-112

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# FIGURE 503

ACGGGCCGCAGCGCAGTGACGTAGGGTTGGCGCACGGATCCGTTGCGGCTGCAGCTCTGCAG CGCACCCAGGTTCGGCCCGTAGGCGTCTGGCAGCCCGGCGCCATCTTCATCGAGCGCCATGGC CGCAGCCTGCGGGCCGGGAGCGGCCGGGTACTGCTTGCTCCTCCGCCTTGCATTTGTTTCTGCT GACCGCGGGCCCTGCCCTGGGCTGGAACGACCCTGACAGAATGTTGCTGCGGGATGTAAAAGC TCTTACCCTCCACTATGACCGCTATACCACCTCCCGCAGGCTGGATCCCATCCCACAGTTGAA ATGTGTTGGAGGCACAGCTGGTTGTGATTCTTATACCCCAAAAGTCATACAGTGTCAGAACAA AGGCTGGGATGGGTATGATGTACAGTGGGAATGTAAGACGGACTTAGATATTGCATACAAATT TGGAAAAACTGTGGTGAGCTGTGAAGGCTATGAGTCCTCTGAAGACCAGTATGTACTAAGAGG TTCTTGTGGCTTGGAGTATAATTTAGATTATACAGAACTTGGCCTGCAGAAACTGAAGGAGTC TGGAAAGCAGCACGGCTTTGCCTCTTTCTCTGATTATTATTATAAGTGGTCCTCGGCGGATTC CTGTAACATGAGTGGATTGATTACCATCGTGGTACTCCTTGGGGATCGCCTTTGTAGTCTATAA GCTGTTCCTGAGTGACGGGCAGTATTCTCCTCCACCGTACTCTGAGTATCCTCCATTTTCCCA CCGTTACCAGAGATTCACCAACTCAGCAGGACCTCCTCCCCCAGGCTTTAAGTCTGAGTTCAC AGGACCACAGAATACTGGCCATGGTGCAACTTCTGGTTTTTGGCAGTGCTTTTACAGGACAACA AGGATATGAAAATTCAGGACCAGGGTTCTGGACAGGCTTGGGAACTGGTGGAATACTAGGATA TTTGTTTGGCAGCAATAGAGCGGCAACACCCTTCTCAGACTCGTGGTACTACCCGTCCTATCC TCCCTCCTACCCTGGCACGTGGAATAGGGCTTACTCACCCCTTCATGGAGGCTCGGGCAGCTA TTCGGTATGTTCAAACTCAGACACGAAAACCAGAACTGCATCAGGATATGGTGGTACCAGGAG ACGA**TAA**AGTAGAAAGTTGGAGTCAAACACTGGATGCAGAAATTTTTGGATTTTTCATCACTTT CTCTTTAGAAAAAAGTACTACCTGTTAACAATTGGGAAAAGGGGGATATTCAAAAGTTCTGTG GTGTTATGTCCAGTGTAGCTTTTTGTATTCTATTATTTGAGGCTAAAAGTTGATGTGTGACAA AATACTTATGTGTTGTCAGTGTAACATGCAGATGTATATTGCAGTTTTTGAAAGTGATC ATTACTGTGGAATGCTAAAAATACATTAATTTCTAAAACCTGTGATGCCCTAAGAAGCATTAA GAATGAAGGTGTTGTACTAATAGAAACTAAGTACAGAAAATTTCAGTTTTTAGGTGGTTGTAGC TGATGAGTTATTACCTCATAGAGACTATAATATTCTATTTGGTATTATATTATTTTGATGTTTG CTGTTCTTCAAACATTTAAATCAAGCTTTGGACTAATTATGCTAATTTGTGAGTTCTGATCAC TTTTGAGCTCTGAAGCTTTGAATCATTCAGTGGTGGAGATGGCCTTCTGGTAACTGAATATTA CCTTCTGTAGGAAAAGGTGGAAAATAAGCATCTAGAAGGTTGTTGTGAATGACTCTGTGCTGG CAAAAATGCTTGAAACCTCTATATTTCTTTCGTTCATAAGAGGTAAAGGTCAAATTTTTCAAC AAAAGTCTTTTAATAACAAAAGCATGCAGTTCTCTGTGAAATCTCAAATATTGTTGTAATAGT CTGTTTCAATCTTAAAAAGAATCA

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# FIGURE 504

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96889

><subunit 1 of 1, 339 aa, 1 stop

><MW: 36975, pI: 7.85, NX(S/T): 1

MAAACGPGAAGYCLLLGLHLFLLTAGPALGWNDPDRMLLRDVKALTLHYDRYTTSRRLDPIPQ LKCVGGTAGCDSYTPKVIQCQNKGWDGYDVQWECKTDLDIAYKFGKTVVSCEGYESSEDQYVL RGSCGLEYNLDYTELGLQKLKESGKQHGFASFSDYYYKWSSADSCNMSGLITIVVLLGIAFVV YKLFLSDGQYSPPPYSEYPPFSHRYQRFTNSAGPPPPGFKSEFTGPQNTGHGATSGFGSAFTG QQGYENSGPGFWTGLGTGGILGYLFGSNRAATPFSDSWYYPSYPPSYPGTWNRAYSPLHGGSG SYSVCSNSDTKTRTASGYGGTRRR

#### Signal peptide:

amino acids 1-30

#### Transmembrane domain:

amino acids 171-190

#### N-glycosylation site.

amino acids 172-176

#### Glycosaminoglycan attachment sites.

amino acids 244-248, 259-263, 331-335

#### Tyrosine kinase phosphorylation site.

amino acids 98-106

#### N-myristoylation sites.

amino acids 68-74, 69-75, 131-137, 241-247, 247-253, 266-272, 270-276, 278-284, 312-318

# FIGURE 505

GCAAAAGGAAGGGAAGCACTCCATCATCTCACTGGGAAGAACGGCACGGGCATACCTGC AGCTACTGGGGTTCCACTGGGCTTGAGGGTCGATTTTTCACCTTTTGAAGGACAAGATGCATT GGAAGATGTTGCTGCTTGTTGTTATTACAATGCTGAGGCTTCTATGTGCCACAGGTGGA GCAGGGCTGTGCTCCTTCCCTGCCGCCCACCGGCCAAAGAGGGTCCTCATCACTGCCATTGAACC CAGTCCTGCAGACCTCCCTGGAGGAGGTGGAGCTGCTCTACGAGTTCCTGCTGGCCGAACTTG AGATCAGCCCTGACCTGCAGATCTCCATCAAGGACGAGGAGCTGGCCTCCTTGCGGAAGGCCT CAGACTTCCGCACCGTCTGCAACAACGTCATCCCCAAGAGCATCCCAGACATCCGCCGGCTCA CCCTGGCCTACACAGCCTACCGCACAGCCCTGTCCCACGGCCATCAGAAGGACATCTGGGCGC AGTCCCTCGTTAGCCTCTTCCAGGCCCTGAGGCACGACTTGATGCGCTCCTCACAGCCGGGAG TACCTCCCTGAGAGAGACTGGCCCACACCAGGACCTCAGAGCAGGACCAGGACCAGTAATCCAGA AAGTCTTCATTCTCTACTCCATTTACAGAGACCAGCAACAAAACACTTACCGCTGACACAGAG CAGCAGAGATCAAACAGTAACCCCGATGCTCTTTTCTCCTTGTAGTTTCCTGGAAGACACATC TGATTCATGCCATCATGTGACCTGGGCTGGAAGAAGGGCTGGAATGGTCATTCAAGACGCCT CCATGGGCAGAATGGTTTGCCTATGGCAGGCAGAATTCTGATATGCTTCAACCCAGAGCAGTG GCCACACACTCAAGAGTGAGAACAGGCGTGAGCCACCGTGCCTGGCCCAGGATCTAAAAACTT TCTAAGTTTCCTCCATCGTTGGCATCCTCACAGCTATCTCCAATGTCACTCAAGAGACATCAA CAGACATTTAACTGCTGCAGACTTCATTGCTCTGTCACCTCACCTTGAATCTAACAAATCAAA GTATTTCTGCAGGTCCAATGGTCTAAAATCAAATGCTTGTTAAATGACTTTTTACAACACCCCTT AGACCCCCGGAACTTTCTCATCTTGTAATTCTGAAGTTCTATACCCACCGAACAACTCCTCTT TTCCCCTTCCCCCTGCCTGCCCCAGCTCTTGGCACCATTATTCTGCTTTTTTTGAGAGT CTGACTACTTAAGATACCTCATACAAGCGGGATCTGGCTTACATTTCTTGAGCATTGTATTCT GGAAAAGTGTTTCCTTCCTCTGAAAAATGGGTAGAGTTCTGAAGGAGAACTACTGGTCTTATT GTACACTTGCTGTACCTATTTTTATTTAACAAATATTCATCTATGGTATAATAAAGATGTCAT GGTTGGAAAAAAAAAAAAAAAAAAAA

## 510/615

# FIGURE 506

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96893</pre> ><subunit 1 of 1, 173 aa, 1 stop ><MW: 19733, pI: 8.78, NX(S/T): 0 MHWKMLLLLLLYYNAEASMCHRWSRAVLFPAAHRPKRSSSLPLNPVLQTSLEEVELLYEF LLAELEISPDLQISIKDEELASLRKASDFRTVCNNVIPKSIPDIRRLSASLSSHPGILKK EDFERTVLTLAYTAYRTALSHGHQKDIWAQSLVSLFQALRHDLMRSSQPGVPP

Important features of the protein: Signal peptide:

Amino acids 1-17

cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 36-40;84-88;105-109

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## FIGURE 507

CGGCCGAGCAATGCCAAGTGAGTACACCTATGTGAAACTGAGAAGTGATTGCTCGAGGCCTTC CCTGCAATGGTACACCCGAGCTCAAAGCAAGATGAGAAGGCCCAGCTTGTTATTAAAAGACAT CCTCAAATGTACATTGCTTGTGTTTTGGAGTGTGGATCCTTTATATCCTCAAGTTAAATTATAC TACTGAAGAATGTGACATGAAAAAAATGCATTATGTGGACCCTGACCATGTAAAGAGAGCTCA GAAATATGCTCAGCAAGTCTTGCAGAAGGAATGTCGTCCCAAGTTTGCCAAGACATCAATGGC GCTGTTATTTGAGCACAGGTATAGCGTGGACTTACTCCCTTTTGTGCAGAAGGCCCCCAAAGA CAGTGAAGCTGAGTCCAAGTACGATCCTCCTTTTTGGGTTCCGGAAGTTCTCCAGTAAAGTCCA GACCCTCTTGGAACTCTTGCCAGAGCACGACCTCCCTGAACACTTGAAAGCCAAGACCTGTCG GCGCTGTGTGTTATTGGAAGCGGAGGAATACTGCACGGATTAGAACTGGGCCACACCCTGAA CCAGTTCGATGTTGTGATAAGGTTAAACAGTGCACCAGTTGAGGGATATTCAGAACATGTTGG AAATAAAACTACTATAAGGATGACTTATCCAGAGGGCGCACCACTGTCTGACCTTGAATATTAT TCCAATGACTTATTTGTTGCTGTTTTTTTTTTTTAAGAGTGTTGATTTCAACTGGCTTCAAGCAATG GTAAAAAAGGAAACCCTGCCATTCTGGGTACGACTCTTCTTTTGGAAGCAGGTGGCAGAAAAA ATCCCACTGCAGCCAAAACATTTCAGGATTTTGAATCCAGTTATCATCAAAGAGACTGCCTTT GACATCCTTCAGTACTCAGAGCCTCAGTCAAGGTTCTGGGGCCGAGATAAGAACGTCCCCACA ATCGGTGTCATTGCCGTTGTCTTAGCCACACATCTGTGCGATGAAGTCAGTTTGGCGGGTTTT GGATATGACCTCAATCAACCCAGAACACCTTTGCACTACTTCGACAGTCAATGCATGGCTGCT ATGAACTTTCAGACCATGCATAATGTGACAACGGAAACCAAGTTCCTCTTAAAGCTGGTCAAA GAGGGAGTGGTGAAAGATCTCAGTGGAGGCATTGATCGTGAATTT<u>TGAAAACACAGAAAACCTCA</u> GTTGAAAATGCAACTCTAACTCTGAGAGCTGTTTTTTGACAGCCTTCTTGATGTATTTCTCCAT GTTGTATTGATTTTAAGAAAGTAATTTAATTTGTAAAACTTCTGCTCGTTTACACTGCACAT TGAATACAGGTAACTAATTGGAAGGAGGGGGGGGGGCCCTCTTTTGATGGTGGCCCTGAACCT CATTCTGGTTCCCTGCTGCTGCTTGGTGTGACCCACGGAGGATCCACTCCCAGGATGACGT GCTCCGTAGCTCTGCTGATACTGGGTCTGCGATGCAGCGGCGTGAGGCCTGGGCTTG GAAGCTGTCCTGGAGGTCCCTGGTCGGAGAGGGACATAGAATCTGTGACCTCTGACAACTGTG AAGCCACCCTGGGCTACAGAAACCACAGTCTTCCCAGCAATTATTACAATTCTTGAATTCCTT GGGGATTTTTTACTGCCCTTTCAAAGCACTTAAGTGTTAGATCTAACGTGTTCCAGTGTCTGT CTGAGGTGACTTAAAAAATCAGAACAAAACTTCTATTATCCAGAGTCATGGGAGAGTACACCC TTTAA

# FIGURE 508

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA96897

><subunit 1 of 1, 362 aa, 1 stop

><MW: 41736, pI: 8.80, NX(S/T): 3

MRRPSLLLKDILKCTLLVFGVWILYILKLNYTTEECDMKKMHYVDPDHVKRAQKYAQQVL QKECRPKFAKTSMALLFEHRYSVDLLPFVQKAPKDSEAESKYDPPFGFRKFSSKVQTLLE LLPEHDLPEHLKAKTCRRCVVIGSGGILHGLELGHTLNQFDVVIRLNSAPVEGYSEHVGN KTTIRMTYPEGAPLSDLEYYSNDLFVAVLFKSVDFNWLQAMVKKETLPFWVRLFFWKQVA EKIPLQPKHFRILNPVIIKETAFDILQYSEPQSRFWGRDKNVPTIGVIAVVLATHLCDEV SLAGFGYDLNQPRTPLHYFDSQCMAAMNFQTMHNVTTETKFLLKLVKEGVVKDLSGGIDR EF

## Important features of the protein:

#### Transmembrane domains:

Amino acids 11-27;281-297

#### N-glycosylation sites:

Amino acids 30-34;180-184;334-338

## cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 2-6;109-113;223-227

### N-myristoylation sites:

Amino acids 146-152;150-156;179-185;191-197

## FIGURE 509

GGGCGGACGCAGTGCAGTAAGAGCAGATGGGCGGACCCAAATTTCTTCGGCTTCACGATTTTG TGCACTCCCTCTGAGCGTGCTAGCTCCGACTGCCTGACGGATCACCCTTCCGCTCCAACATGG CCCACAGGTGGCGAAGGCTCCGCGAGAGGGTTCCCGCCAGGCTAGACAGTGGAGTGCCGCACA GCGCGCCTTCCAGCCTCGCAGCCGCCACCCTAGCGGTTCCGACCCGGCGCCAGCAGGCCTGCT TGCTGCCGCCGGGTACTGTCCTGGGTGCCAGTGCTCGTTATTGTCCTCGTCGTCCTCGTCC TACTATGCCTACGTCTTTGAACTCTGCCTGGTTATTTACCTCATACTCTACCATGCCATCTTT GTGTTCTTTACCTGGACCTACTGGAAGTCTATCTTTACACTCCCACAGCAGCCAAACCAGAAG TTCCACTTGTCCTACACAGACAAGGAGCGCTATGAAAATGAAGAAGACCTGAGGTCCAGAAG CAGATGCTTGTTGATATGGCCAAAAAGCTACCGGTTTACACAAGAACTGGAAGTGGAGGTCAG TTCATCCAAAGGCAGCTAGAGAGGCAGCTCAGCAAGTATCTCAGAAAGGCTAAGTCATATATG TTCTCAAAC<u>TAG</u>CCCTTTTTTTTCCTCCCATCTTCTGAAAACCACTATGGAGATTTTTCTCCA CACATATGCATACCTCTATTTATCTTTCGTCAAGCCATCTTATGTTTCTGATGCATTTCAAAG TAAATAGCTGACATCAGTAAGACATCTACCTAAATATTTTATTCTGTTTTGTTAAAATTTTACA TACAAAAACATGCATAATCTTAAGGGTACCATTCCATGTATTTTGAAAAGTGTACACATCTGT GTAACTAAACCCCCAATAAAATTGCCATCACCTCAG

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# FIGURE 510

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA98564
><subunit 1 of 1, 143 aa, 1 stop
><MW: 17255, pI: 9.99, NX(S/T): 0
MRRGWKMALSGGLRCCRRVLSWVPVLVIVLVVLWSYYAYVFELCLVIYLILYHAIFVFFT
WTYWKSIFTLPQQPNQKFHLSYTDKERYENEERPEVQKQMLVDMAKKLPVYTRTGSGGQF
IQRQLERQLSKYLRKAKSYMFSN

#### Important features of the protein:

#### Transmembrane domain:

Amino acids 24-45

#### N-myristoylation sites:

Amino acids 11-17;12-18

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## FIGURE 511

CAGCCGGGGCGATGGCGGGCTCTGGCTGGGGGCTCGTGTGGCAGAAGCTGCTGTGGGGGCG CGGCGAGTGCCCTTTCCCTGGCCGGCGCCAGTCTGGTCCTGAGCCTGCTGCAGAGGGTGGCGA GCTACGCGCGGAAATGGCAGCAGATGCGGCCCATCCCCACGGTGGCCCGCGCCTACCCACTGGTG GGCCACGCGCTGCTGATGAAGCCGGACGGGCGAGGTAAGGGCCGGCGCTCCTCCTGGAGCGCA ACGGGGTCCGCAGCCCGTTCCCACCCTCCGATCAGCCAGGAACCCGCTGCTTGTGGCGCTGG CCGCAGGAGAGAGCCTGTCACCCTGTGGAGAATGCACTCCCAGTTCTAGTCGTTGCCCCT TGGCACCCGCCGACACTGCTAGTGCCCCCATCCCAAAGTGAGCATTTTCTTTGTGTGTAGCACA GGATGCGGTATTTCCAAACCCCTGCCCTCGGTCTTTTCCCACCTCACCGCTGCTCAGCTCTCA AAGCCCTGCCGTTTCCTCCTGCCTTGGCTTGGGAAGCCTTAGGAACAGAAGCTCCCTGGGAGC ACAGAGCGGTTTTAAACTGGCCAACACCTTAACGCCCAGAGCCGCCCTCCTCTCGCTGCCACT TTGGAAAATAAGAGACTAGAGATTCACTGGACGCTTCCTCCCGGCATCACAAGACTTGACTGC TGCTTCAGTTCCCGCTTGACCTTCATACTTTAGCCCCTTTAAAGGATGTTACATAATAACAATT AAGAGACGCCAGGCCTTCAGGCAGACTTCTTTGGAGGGTGTCAAACGCCTTGTTTATTAAAG AGTGAATTTTTTAATTAAAATCATGTTTTAAAACAGAGATGGACATTTTATTGATGGAAAAAA GAACTCGATCTCAGAGTTTTATTTTCATCAGGGATTACGTTGAGGTACCCAGAAATGAGAAGA TTTGCCCAAAATGGCATATTTTAAAATTGGCCCAGACCAGAACCCAGTTTCCTCTGGGATTAT TTGTTAGTAATCGTTTTACAGGCTGAGCATTAACTAACTCCAAAGCTTGAAGGACTTTTTCTC ATTTTCACTTGTTTTCTCTAATAAAAATAATGCTGTAATTTCAACTTCACAAGATGAGGCCTC ATGGAAGAGTGTTTACCAAAATATTAAAAATACTTTGACAGAAAAAATCAAGCGAACTCTTT GCCAACCAAATATCATCATGACTGATGTAACAAGTAATCCAACACAGATATGAAAATCACTGG TAAAAATCATCTCAGTTAATTCTAAAAGCAGAGCTAACCACCCCTTTTGTCCTAAGGCTTTAT GGTATTAAAAAATAAACTGTACAAAAATATAGATTTTCCCCCTATCCCCTACCCCTGGAAAGTA ATATACTGAAGTCTCATCATACTGTTTTTGGGGATTCCAGTAATTAAAATCTCTAGTGAACAAA GACCTGTTTCAAAACAACCTGTGAGCTGACTGGACTATTTAAAGTAATTCTCCTTGTAGTCAC TTTCAGAGTGAAGACAATGACGAATACTGTCTTTTACAAAGGGACTTTTTATTCCACCAACAA ATTCTGGATTTTGGCATCAGGAAAACCACTGTTCAATTTCCAACACTATATCCAAGTTGTTTG AGAAATTATTTAAAACTCTTTAACTTAGAGGGTTTTCTTCTCTCCTTTACTTGTTAAAGTGACT AAGTCAGTTAGAGTAAGTTCTTTAGTTGTCAATCAAGCATTTAGTAAGGCCCTGCTTTGTGCC CAGTGTTGACCTCAACAAGTTGGGGATATCAGAATATTCTAAGATACAGTCGTTGTTCCCAA GAATCTTGTCTTTCACATACAAGAGGTGTTGCGTTTCATTTTGCGGCTAATGTCCAAACGCTG GCCTCAGCCATTTCACCTTGAAGATTGCAGTTGGCTTCCAACTGGCCTCTAAACTCTAATCTA GCATTTTCCAGTCCATTGTGACAAAGTCTGCCTTCCCCAGCTACTCCCAGCTGTTGGACCTGC TGCCTTAGAACCACAGATTGGTACCTCGTGCC

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# FIGURE 512

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA107443
><subunit 1 of 1, 178 aa, 1 stop
><MW: 19353, pI: 10.97, NX(S/T): 0
MAGLWLGLVWQKLLLWGAASALSLAGASLVLSLLQRVASYARKWQQMRPIPTVARAYPLV
GHALLMKPDGRGKGRRSSWSATGSAAPFPPSDQPGTRCLWRWPQERGACHPVENALPVLV
VAPWHPPTLLVPHPKVSIFFVCSTGCGISKPLPSVFSHLTAAQLSKPCRFLLPWLGKP

Important features of the protein:

Signal peptide:

Amino acids 1-25

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 75-79

N-myristoylation sites:

Amino acids 3-9;17-23;145-151

Amidation site:

Amino acids 73-77

Leucine zipper pattern:

Amino acids 8-30

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## FIGURE 513

GGCGGCTGGACGACGCTCAGAGCCCAGCTCTCGAGAGTTCAAGCAACCGACGGTTCC GGCCGAGGACCTGCCAGTAGGGCTCAGTTGCCTGGAGCCCGTTCAGCCCATCCCCCAGTT CACTTTGCTTGTGGGATCTCCCCGTTGCTCCTGCCCGTGGACTGAGTGGCAGGCCATCCT ACAAGCACCCGGACACTTGACATCAGTGGTGTCAAGACAACTCTAAGAAGGTTTTCCGTG ATCCTGCAAGCCCTGCCTTCCTTCCTGGGATCCTGCCTTCAATTTGATTGCACAGGTACC ACAGCAAGCCAGTGCTGTGTGCTCCGAGTTCCAGGGGCGTCCTCCAGCTCAGCCACTGCAC TGAGAACATGGACTCTCTGTGGGGCCCAGGAGCCGGGAGTCACCCCTTTGGGGTCCACAA CACCCGGCTGTCCCCAGACTTGTGTCCAGGGAAGATAGTGTTGAGGGCCCTCAAGGAGAG CGGGGCAGGATGCCTGAGCAGGACAAGGACCCTAGAGTCCAAGAGAATCCTGGTGATCA GAGAAGGGTCCCCGAGGTCACCGGGGATGCACGGTCTGCATTTCGGCCCCTGCGGGACAA GAGGTCAGAAATCAGATATAACCAGACATCCCAGACCTCCTGGACGAGCTCCTGCACCAA CCGAAATGCCATCTCCAGCTCCTACAGCTCCACGGGAGGCTTGCTGGGGGCTAAAGCGGAG GGACAGGCCTCAGGCTCTCTTCAGGTCACACCCAGTGTGAAAAGGCAGCAGATATAGC ACCAGGGCAGACACTCACCCTCAGGAATGACTCCTCCACATCCGAGGCCTCTAGGCCCAG TACACACAAGTTTCCCCTGCTGCCACGCAGGCGAGGGGAGCCTTTGATGCTGCCACCTCC CTTAGAGCTGGGGTACCGGGTCACTGTTGAAGACCTGGACCGGGAGAAGGAGGCGGCCTT CCAGCGCATCAACAGTGCACTGCAGGTTGAGGACAAGGCCATCTCGGACTGCAGACCCTC TAAAGCACCCAGTATGGATGCACAGCAGGAGACACACAAGTCCCAAGACTGCCTGGGCCT ACTGGACCCCTTAGCATCTGCTGCAGGGGTCCCCTCTACAGCTCCCATGTCTGGGAAGAA GCACAGACCACCAGGCCCCCTGTTCTCCTCCTCAGATCCCCCTTCCTGCCACCTCTTCTGA TTCCCAGGACTCAGCCCAGGTCACCTCGCTGATTCCTGCCCCCCTTCCCAGCTGCAAGCAT GGATGCGGCATGAGAAGAACAAGGCATGGCACTTCTGCTCCTGCAGCTGCCGCAGCAGC TCACATTTCTGGGCCTCAGCCACAGCTGCAGCAGGTGCCCAGAGGTCAGAACCAGAGATC CCAGACCTCCTGGACCAGCTCGTGCCCCAAA<u>TGA</u>AATGCCATCTCGAGCCCCTACAGCTC TACGGGAGGCCTCCCGGAACAAAGCGGAAGAGGGGCCAGCCTCATCCCACTGCCAGCTG ACCCTCAGTTCCTCAAACACAGTGAGTGAGGACGGACCTCAGGCTGTCTCTTCGGGTCAC ACCCAGTGTGAAAAGACGGCAGATACAGCACCAGGGCAGACACTCGCCTCCAGGGGTGGC TCCCCCAGATCCCAGGCCTCTAGGCCCCGTATATGCAAGTTTCCCCTGCTGCCACGCAGG CGAGGGGAGCCTTTGATGCTGCCACCTCCCTTAGAGATGGGGTACCGGGTCACTGCTGAA GACCTGGACCGGGAGAAGGAGGCATTCCAGCGCATCAACAGTGCACTGCAGGTTGAG GACCAGGCCATCTAGGACTGCAGACCCTCACGGCCTTCCCACACTTTGTCCTCACTTGCA ACAGGGGCTTCTGGTCTGCCTGCCGTTTCTAAAGCACCCAGTATGGATGCACAGCAGGAG ACACACAAGTCCCAAGACTGCCTGGGCCTAGTGGCCCCCCTGCATCTGCTGCACAGGCCT GTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAACGGCATAAACCCGGGAGGCAGAGC TTGCAGTGAGCTGAGATCGCGCCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGT CTC

### 518/615

# FIGURE 514

></usr/seqdb2/sst/DNA/Dnaseqs.full/ss.DNA107786

><subunit 1 of 1, 428 aa, 1 stop

><MW: 45450, pI: 9.28, NX(S/T): 3

MDSLWGPGAGSHPFGVHNTRLSPDLCPGKIVLRALKESGAGMPEQDKDPRVQENPGDQRR VPEVTGDARSAFRPLRDNGGLSPFVPGPGPLQTDLHAQRSEIRYNQTSQTSWTSSCTNRN AISSSYSSTGGLLGLKRRRGPASSHCQLTLSSSKTVSEDRPQAVSSGHTQCEKAADIAPG QTLTLRNDSSTSEASRPSTHKFPLLPRRRGEPLMLPPPLELGYRVTVEDLDREKEAAFQR INSALQVEDKAISDCRPSRPSHTLSSLATGASGLPAVSKAPSMDAQQETHKSQDCLGLLD PLASAAGVPSTAPMSGKKHRPPGPLFSSSDPLPATSSDSQDSAQVTSLIPAPFPAASMDA GMRRTRHGTSAPAAAAAAPPRSTLNPTLGSLLEWMEALHISGPQPQLQQVPRGQNQRSQT SWTSSCPK

Important features of the protein:

N-glycosylation sites:

Amino acids

105-109;187-191

Glycosaminoglycan attachment site:

Amino acids 38-42

N-myristoylation sites:

Amino acids

15-21;130-136;180-186;307-313;361-367

Amidation site:

Amino acids

315-319

Prokaryotic membrane lipoprotein lipid attachment site:

Amino acids

106-117

## FIGURE 515

CAGCCACCTCACGGCTGCCAGGAGTGCGCGGGGAGTTTGCCCCGGAGCGCGGGGAAGTTTCCTC CGAAGCTGCGCTCCTGGAACAGCACCACCTGCAAGCGCCCGGGCAGCGCCCGCGAGGTTACTT TATGGAATTGGGCTCTTAGAGAACAAGAAAAGACTGAAGTTTTACGGGAAAACAAATCATGTG GTCTTCAGATTCTGAAATAAGGAGAAATGCCAGCCATCTGAAATGGTCATGAACCCCCAAACAAG TCTTCCTCTCTGTGCTGATATTTGGAGTAGCTGGGCTACTCCTCTTCATGTATTTGCAAGTCTGG ATTGAAGAACAACATACAGGGAGAGTGGAGAAGAAGAGAAAAAGAAAAGTAACTTCAGGATGG GGACCAGTGAAGTACTTGCGGCCTGTACCCAGAATCATGAGTACAGAAAAAATCCAGGAACAT ATCACCAACCAGAACCCCAAGTTTCACATGCCTGAGGATGTACGAGAAAAAAAGGAAAATCTT CTACTCAATTCTGAGAGATCTACTAGGCTCTTAACAAAGACCAGTCATTCACAAGGAGGGGAT AAGACTGTTTTTAACAAGTTCAGCAACATGAATTGGCCAGTGGACATTCACCCTTTAAACAAA AGTTTAGTCAAAGATAATAAATGGAAGAAAACTGAGGAGACCCAAGAGAAACGAAGGTCTTTC CTTCAGGAGTTTTGCAAGAAATACGGTGGGGTGAGTCATCATCAGTCACATCTTTTTCATACA GTATCCAGAATCTATGTAGAAGATAAACACAAAATCTTATATTGTGAGGTACCTAAGGCTGGC TGTTCCAATTGGAAAAGAATTCTGATGGTACTAAATGGATTGGCTTCCTCTGCATACAACATC TCCCACAATGCTGTCCACTACGGGAAGCATTTGAAGAAGCTAGATAGCTTTGACCTAAAAGGG GTATCAGCCTTTAGGGACAAATTTGAACACCCCAATAGTTATTACCATCCAGTATTCGGAAAG AAGTTCAAAGAGTTTATCCACTACTTGCTGGATTCCCACCGTCCAGTAGGAATGGACATTCAC TGGGAAAAGGTCAGCAAACTCTGCTATCCGTGTTTGATCAACTATGATTTTGTAGGGAAATTT GAGACTTTGGAAGAAGATGCCAATTACTTTTTACAGATGATCGGTGCTCCAAAGGAGCTGAAA TTTCCCAACTTTAAGGATAGGCACTCTTCCGATGAAAGAACCAATGCTCAAGTCGTGAGACAG TATTTAAAGGATCTGACTAGAACTGAGAGACAATTAATCTATGACTTTTATTACTTGGACTAT TTAATGTTTAATTATACAACTCCACTTTTG<u>TAG</u>TTTGCATTCATTTTCTAAAACCCTGTATAT ACTTAATGATGATAAGTTCAAATCAGCTGTAATTTTTCTATAATTCTCTGTATGACAGAAATT TAACCAAGTGCAGTTGTCTTGATTTAATGTAGATTTTTTACCAAATAGTATGACACCAATTGGC ACAAAGTTATAGGAAAATCACCTACAGGAGATGTAAACAACTTGAGTTGCTCTAAAATGTTTG GAAAAGAGCTGCTTTTGCATTATGAATTATTGTTGAAGCAATAACCTAGCCAGCTGTTGCA TTAGCTAAAGCAGCCTCTTGCAATGGTAGGAAAAAAGGATCTCAAATAGCATGAGTGTATGTC TATATCCTGAAATTTATTGTCTAAAATGCATGAATATATTTTTTAGCAGTCTGTGGCATATTAA TCAAACTGTTGAATTGTTTTCTTACACCCTGGAAATCTTTCTATCAACTATAATGATAAATCC ATTTTGAAGTGATATTTTGGACTTAGGCATTTTACTTTAGATTGGAAGGCATTATGTGATTTACA ATATGAGAATATAGCAGAAAAACCA

### 520/615

# FIGURE 516

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108682

><subunit 1 of 1, 443 aa, 1 stop ><MW: 52021, pI: 9.63, NX(S/T): 4

MQPSEMVMNPKQVFLSVLIFGVAGLLLFMYLQVWIEEQHTGRVEKRREQKVTSGWGPVKY LRPVPRIMSTEKIQEHITNQNPKFHMPEDVREKKENLLLNSERSTRLLTKTSHSQGGDQA LSKSTGSPTEKLIEKRQGAKTVFNKFSNMNWPVDIHPLNKSLVKDNKWKKTEETQEKRRS FLQEFCKKYGGVSHHQSHLFHTVSRIYVEDKHKILYCEVPKAGCSNWKRILMVLNGLASS AYNISHNAVHYGKHLKKLDSFDLKGIYTRLNTYTKAVFVRDPMERLVSAFRDKFEHPNSY YHPVFGKAIIKKYRPNACEEALINGSGVKFKEFIHYLLDSHRPVGMDIHWEKVSKLCYPC

LINYDFVGKFETLEEDANYFLQMIGAPKELKFPNFKDRHSSDERTNAQVVRQYLKDLTRT ERQLIYDFYYLDYLMFNYTTPLL

## Important features of the protein:

Signal peptide:

Amino acids 1-24

#### N-glycosylation sites:

Amino acids 159-163;243-247;324-328;437-441

#### Glycosaminoglycan attachment site:

Amino acids 53-57

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 177-181

#### Tyrosine kinase phosphorylation site:

Amino acids 329-337

#### N-myristoylation sites:

Amino acids 116-122;236-242

## FIGURE 517

GGAACTTCCCAGGCACCCTGTGTGGCCGCACTGCTCCCTCTGGCCCAACCATGCCTCTGTCCAGCCACCTGCTGC CCGCCTTGGTCCTGTTCCTGGCAGGGTCCTCAGGCTGGGCCTGGGTCCCCAACCACTGCAGGAGCCCTGGCCAGG CCGTGTGCAACTTCGTGTGTGACTGCAGGGACTGCTCAGATGAGGCCCAGTGTGGTTACCACGGGGCCTCGCCCA CCCTGGGCGCCCCCTTCGCCTGTGACTTCGAGCAGGACCCCTGCGGCTGGCGGGACATTAGTACCTCAGGCTACA TGGGCTGGTACATGGCCGTTGGAACCCACCGAGGGAAAGAGGCATCCACCGCAGCCCTGCGCCAACCCTGC GAGAGGCAGCCTCCTCTTGCAAGCTGAGGCTCTGGTACCACGCGGCCTCTGGAGATGTGGCTGAACTGCGGGTGG AGCTGACCCATGGCGCAGAGACCCTGACCCTGTGGCAGAGCACAGGGCCCTGGGGCCCTGGCCAGGCAGTTGG CTGTGGCTCTAGATGACCTAGAGTTCTGGGACTGTGGTCTGCCCACCCCCCAGGCCAACTGTCCCCCGGGACACC ACCACTGCCAGAACAAGGTCTGCGTGGAGCCCCAGCAGCTGTGCGACGGGGAAGACAACTGCGGGGACCTGTCTG ATGAGAACCCACTCACCTGTGGCCGCCACATAGCCACCGACTTTGAGACAGGCCTGGGCCCATGGAACCGCTCGG AAGGCTGGTCCCGGAACCACCGTGCTGGTGGTCCTGAGCGCCCCTCCTGGCCACGCCGTGACCACAGCCGGAACA GTGCACAGGGCTCCTTCCTGGTCTCCGTGGCCGAGCCTGGCACCCCTGCTATACTCTCCAGCCCCGAATTCCAAG TCCTGCAGACTCTGGGGCCCCGGCCCCCCGGGCCCCCGTCCTGCTGCGGAGGCGCCGAGGGGAGCTGGGGACCG CCTGGGTCCGAGACCGTGTTGACATCCAGAGCGCCTACCCCTTCCAGATCCTCCTGGCCGGGCAGACAGGCCCGG GGGGCGTCGTGGGTCTGGACGACCTCATCCTGTCTGACCACTGCAGACCAGTCTCGGAGGTGTCCACCCTGCAGC CGCTGCCTCCTGGGCCCCGGGCCCCAGCCCCCAGCCCCTGCCGCCCAGCTCGCGGCTCCAGGATTCCTGCAAGC AGGGGCATCTTGCCTGCGGGGACCTGTGTGTGCCCCCGGAACAACTGTGTGACTTCGAGGAGCAGTGCGCAGGGG GCGAGGACGAGCAGGCCTGTGGCACCACAGACTTTGAGTCCCCCGAGGCTGGGGGGCTGGGAGGACGCCAGCGTGG GGCGGCTGCAGTGGCGGCGTGTCTCAGCCCAGGAGAGCCAGGGGTCCAGTGCAGCTGCTGCTGGGCACTTCCTGT CTCTGCAGCGGGCCTGGGGGCAGCTAGGCGCTGAGGCCCGGGTCCTCACACCCCTCCTTGGCCCTTCTGGCCCCA GCAGCTGGTACCCAGGCCACCTCTCAGACACACTGGCGCTGGGTGGAGAGCCGCGGCCCTGACCACGACCACA CCACAGGCCAAGGCCACTTTGTGCTCCTGGACCCCACAGACCCCCTGGCCTGGGCCACAGTGCCCACCTGCTCT CCAGGCCCCAGGTGCCAGCAGCACCCACGGAGTGTCTCAGCTTCTGGTACCACCTCCATGGGCCCCAGATTGGGA CTCTGCGCCTAGCCATGAGACGGGAAGGGGAGACACACCTGTGGTCGCGGTCAGGCACCCAGGGCAACCGCT GGCACGAGGCCTGGGCCACCCTTTCCCACCAGCCTGGCTCCCATGCCCAGTACCAGCTGCTGTTCGAGGGCCTCC GGGACGGATACCACGGCACCATGGCGCTGGACGATGTGGCCGTGCGGCCCCTGCTGCGGCCCCTAATTACT GCTCCTTTGAGGACTCAGACTGCGGCTTCTCCCCTGGAGGCCAAGGTCTCTGGAGGCGGCAGGCCAATGCCTCGG GCCATGCTGCCTGGGGCCCCCCAACAGACCATACCACTGAGACAGCCCAAGGGCACTACATGGTGGTGGACACAA GCCCAGACGCACTACCCCGGGGCCAGACGCCTCCCTGACCTCCAAGGAGCACAGGCCCCTGGCCCAGCCTGCTT GTCTGACCTTCTGGTACCACGGGAGCCTCCGCAGCCCAGGCACCCTGCGGGTCTACCTGGAGGAGCGCGGGAGGC CCTGGAGGGTGTGTTTGAGGCAGTGGCCGCAGGCGTGGCACACTCCTACGTGGCTCTGGATGATCTGCTCCTCC AGGACGGGCCCTGCCCTCAGCCAGGTTCCTGTGATTTTGAGTCTGGCCTGTGTGGCTGGAGCCACCTGGCCGGGC CCGGCCTGGGCGGATACAGCTGGGGACTGGGGCGGGGGGGCCACCCCCTCTCGTTACCCCCAGCCCCCTGTGGACC GGCTGCGCAGCGAGCCTCTGCCGGCCACCCCAGCCTCCTGCCTCCGCTTCTGGTACCACATGGGTTTTCCTGAGC ATCGGCGGCACCAGTGGCTGGAGGCCCAGGTGGAGGTAGCCAGTGCCAAGGAGTTCCAGATCGTGTTTGAAGCCA AGCCTGCCCCCAGCCCGGGGAACACAGCCGCACCCGGGTCTGTGCCAGCTGTGGTTGGCAGTGCCCTCCTATTGC TCATGCTCCTGGTGCTGCTGGGGACTTGGGGGGCCCCTGGCTGCAGAAGAAGGGGGAGCTGCCCCTTCCAGAGCA ACACAGAGGCCACAGCCCCTGGCTTTGACAACATCCTTTTCAATGCGGATGGTGTCACCCTCCCGGCATCTGTCA CCAGTGATCCGTAGACCACCCCAGACAAGGCCCCGCTTCCTCACGTGACATCCAGCACTTGGTCAGACCCTAGCC AGGGACCGGACACCTGCCCCCCCCCGGGCTGGGACAGGCTGCAGGTCTCAGGATATGCTGAGGCCTGGGCGTTCCC ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

### 522/615

## FIGURE 518

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108684

><subunit 1 of 1, 1137 aa, 1 stop ><MW: 122776, pI: 6.00, NX(S/T): 4

MPLSSHLLPALVLFLAGSSGWAWVPNHCRSPGQAVCNFVCDCRDCSDEAQCGYHGASPTL GAPFACDFEQDPCGWRDISTSGYSWLRDRAGAALEGPGPHSDHTLGTDLGWYMAVGTHRG KEASTAALRSPTLREAASSCKLRLWYHAASGDVAELRVELTHGAETLTLWQSTGPWGPGW QELAVTTGRIRGDFRVTFSATRNATHRGAVALDDLEFWDCGLPTPQANCPPGHHHCQNKV CVEPQQLCDGEDNCGDLSDENPLTCGRHIATDFETGLGPWNRSEGWSRNHRAGGPERPSW PRRDHSRNSAQGSFLVSVAEPGTPAILSSPEFQASGTSNCSLVFYQYLSGSEAGCLQLFL QTLGPGAPRAPVLLRRRRGELGTAWVRDRVDIQSAYPFQILLAGQTGPGGVVGLDDLILS DHCRPVSEVSTLQPLPPGPRAPAPQPLPPSSRLQDSCKQGHLACGDLCVPPEQLCDFEEQ CAGGEDEQACGTTDFESPEAGGWEDASVGRLQWRRVSAQESQGSSAAAAGHFLSLQRAWG QLGAEARVLTPLLGPSGPSCELHLAYYLQSQPREVSCNFERDTCSWYPGHLSDTHWRWVE SRGPDHDHTTGQGHFVLLDPTDPLAWGHSAHLLSRPQVPAAPTECLSFWYHLHGPQIGTL RLAMRREGEETHLWSRSGTQGNRWHEAWATLSHQPGSHAQYQLLFEGLRDGYHGTMALDD VAVRPGPCWAPNYCSFEDSDCGFSPGGQGLWRRQANASGHAAWGPPTDHTTETAOGHYMV VDTSPDALPRGQTASLTSKEHRPLAQPACLTFWYHGSLRSPGTLRVYLEERGRHQVLSLS AHGGLAWRLGSMDVQAERAWRVVFEAVAAGVAHSYVALDDLLLQDGPCPQPGSCDFESGL CGWSHLAGPGLGGYSWDWGGGATPSRYPQPPVDHTLGTEAGHFAFFETGVLGPGGRAAWL RSEPLPATPASCLRFWYHMGFPEHFYKGELKVLLHSAQGQLAVWGAGGHRRHQWLEAQVE VASAKEFQIVFEATLGGQPALGPIALDDVEYLAGQHCQQPAPSPGNTAAPGSVPAVVGSA LLLLMLLVLLGLGGRRWLQKKGSCPFQSNTEATAPGFDNILFNADGVTLPASVTSDP

#### Important features of the protein:

Signal peptide:

Amino acids 1-20

#### Transmembrane domain:

Amino acids 1075-1092

#### N-glycosylation sites:

Amino acids 203-207;281-285;339-343;756-760

#### cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 514-518;1100-1104

#### N-myristoylation sites:

Amino acids 32-38;55-61;61-67;106-112;116-122;336-342;350-356;409-415; 523-529;540-546;678-684;707-713;791-797;870-876;921-927; 937-943;954-960;1036-1042;1071-1077

#### Amidation site:

Amino acids 1093-1097

#### Cell attachment sequence:

Amino acids 191-194

## FIGURE 519

GCAGGGGAGCTCCGAGTGTCCACAGGAAGGGAACTATCAGCTCCTGGCATCTGTAAGGATGCT GTCCATGCTGAGGACAATGACCAGACTCTGCTTCCTGTTATTCTTCTCTGTGGCCACCAGTGG GTGCAGTGCAGCAGCCTCTTCTCTTGAGATGCTCTCGAGGGAATTCGAAACCTGTGCCTT CTCCTTTCCTCCCTGCCTAGAAGCTGCAAAGAAATCAAGGAACGCTGCCATAGTGCAGGTGA TGGCCTGTATTTTCTCCGCACCAAGAATGGTGTTGTCTACCAGACCTTCTGTGACATGACTTC TGGGGGTGGCGGCTGGACCCTGGTGGCCAGCGTGCACGAGAATGACATGCGTGGGAAGTGCAC GGTGGGTGATCGCTGGTCCAGTCAGCAGGGCCAACAAAGCAGACTACCCAGAGGGGGATGGCAA CTGGGCCAACTACAACACCTTTGGATCTGCAGAGGCGGCCACGAGCGATGACTACAAGAACCC TGGCTACTACGACATCCAGGCCAAGGACCTGGGCATCTGGCATGTGCCCAACAAGTCCCCCAT GCAGCATTGGAGAAACAGCGCCCTGCTGAGGTACCGCACCAACACTGGCTTCCTCCAGAGACT GGGACATAATCTGTTTGGCATCTACCAGAAATACCCAGTGAAATACAGATCAGGGAAATGTTG GAATGACAATGGCCCAGCCATACCTGTGGTCTATGACTTTGGTGATGCTAAGAAGACTGCATC TTATTACTCACCGTATGGTCAACGGGAATTTGTTGCAGGATTCGTTCAGTTCCGGGTGTTTAA TAACGAGAGAGCAGCCAACGCCCTTTGTGCTGGGATAAAAGTTACTGGCTGTAACACTGAGCA TCACTGCATCGGTGGAGGAGGGTTCTTCCCACAGGGCAAACCCCGTCAGTGTGGGGACTTCTC CGCCTTTGACTGGGATGGATATGGAACTCACGTTAAGAGCAGCTGCAGTCGGGAGATAACGGA GGCGGCTGTACTCTTGTTCTATAGATGAGACCAGAGCTCTGCGGTGTCAGGGCGAGAACCCATC ATCACATCAATTTGCA

## 524/615

# FIGURE 520

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108701

><subunit 1 of 1, 325 aa, 1 stop

><MW: 36212, pI: 8.68, NX(S/T): 1

MLSMLRTMTRLCFLLFFSVATSGCSAAAASSLEMLSREFETCAFSFSSLPRSCKEIKERC HSAGDGLYFLRTKNGVVYQTFCDMTSGGGGWTLVASVHENDMRGKCTVGDRWSSQQGNKA DYPEGDGNWANYNTFGSAEAATSDDYKNPGYYDIQAKDLGIWHVPNKSPMQHWRNSALLR YRTNTGFLQRLGHNLFGIYQKYPVKYRSGKCWNDNGPAIPVVYDFGDAKKTASYYSPYGQ REFVAGFVQFRVFNNERAANALCAGIKVTGCNTEHHCIGGGGFFPQGKPRQCGDFSAFDW DGYGTHVKSSCSREITEAAVLLFYR

# Important features of the protein:

Signal peptide:

Amino acids 1-26

#### Glycosaminoglycan attachment site:

Amino acids 86-90

#### N-myristoylation sites:

Amino acids 23-29;88-94;127-133;136-142;265-271

## 525/615

# FIGURE 521

GATCAGTGTGTGAGGGAACTGCCATCATGAGGTCTGACAAGTCAGCTTTGGTATTTCTGCTCCTGCAGCTCTTCT GTGTTGGCTGTGGATTCTGTGGGAAAGTCCTGGTGTGGCCCTGTGACATGAGCCATTGGCTTAATGTCAAGGTCA GGAAGCCTTCTGCATTGAAATTTGAGGTGGTCCATATGCCACAGGACAGAACAGAAGAAAATGAAATATTTGTTG TAAGAGGAACTTTAAAAAATGATGTGTGAGAGCTTTATCTACAATCAGACGCTTATGAAGAAGCTACAGGAAACCA TGCTCACACTTAGAATTTCTGTAGGAGGCAATATGGAGCGAAGCTGTGGGAAACTTCCAGCTCCACTTTCCTATG TACCTGTGCCTATGACAGGACTAACAGACAGAATGACCTTTCTGGAAAGAGTAAAAAATTCAATGCTTTCAGTTT TGTTCCACTTCTGGATTCAGGATTACGACTATCATTTTTTGGGAAGAGTTTTATAGTAAGGCATTAGGAAGGCCCA CTACATTATGTGAGACTGTGGGAAAAGCTGAGATATGGCTAATACGAACATATTGGGATTTTGAATTTCCTCAAC CATACCAACCTAACTTTGAGTTTGTTGGAGGATTGCACTGTAAACCTGCCAAAGCTTTGCCTAAGGAAATGGAAA ATTTTGTCCAGAGTTCAGGGGAAGATGGTATTGTGGTGTTTTCTCTGGGGGTCACTGTTTCAAAATGTTACAGAAG AAAAGGCTAATATCATTGCTTCAGCCCTTGCCCAGATCCCACAGAAGGTGTTATGGAGGTACAAAGGAAAAAAAC CATCCACATTAGGAGCCAATACTCGGCTGTATGATTGGATACCCCAGAATGATCTTCTTGGTCATCCCAAAACCA AAGCTTTTATCACTCATGGTGGAATGAATGGGATCTATGAAGCTATTTACCATGGGGTCCCTATGGTGGGAGTTC CCATATTTGGTGATCAGCTTGATAACATAGCTCACATGAAGGCCCAAAGGAGCAGCTGTAGAAATAAACTTCAAAA CTATGACAAGCGAAGATTTACTGAGGGCTTTGAGAACAGTCATTACCGATTCCTCTTATAAAGAGAATGCTATGA GATTATCAAGAATTCACCATGATCAACCTGTAAAGCCCCCTAGATCGAGCAGTCTTCTGGATCGAGTTTGTCATGC GCCACAAAGGAGCCAAGCACCTGCGATCAGCTGCCCATGACCTCACCTGGTTCCAGCACTACTCTATAGATGTGA TTGGGTTCCTGCTGACCTGTGTGGCAACTGCTATATTCTTGTTCACAAAATGTTTTTTATTTTCCTGTCAAAAAT TTAATAAAACTAGAAAGATAGAAAAGAGGGAA**TAG**ATCTTTCCAAATTCAAGAAAGACCTGATGGGGTAATCCTG TTAATTCCAGCCACATAGAATTTGGTGAAAACCTTGCTATTTTCATATTATCTATTCTGTTATTTTATCTTAGCT ATATAGCCTAGAATTCCATGATCATGAGGTTGTGAGTATATCTCATTCTTTCGTTGTATTTTCCTAGGTGTCTTT ACTCTCTCTCTCACTTTGTGACACAAGGACATGAATACATCTAAATTTTCCTATTTCTGATATGACTGTTTTGA TGATGTCATTACTTCTATAACCTTAAGTGATAGGGTGACATGCAATATGATTATTCCTGGTGTGCGCCCAAACAC ATGGATATAAAGAGGTAAAAAACTTAAAATTCACAAAATTCAGTAAACCACACAAATCAGGTAAGTGTTCTATGA GATTAGCTGGCTATGAGAAACATAATGATGTTTCTTTTTCAATTTAAATAAGCCTTTCTACATAGCCAGCATCAG TGATCTCAGAAAATAAATTGCTAATAATGATGACATGGCATTATGCTTAGAAAAGTTTGCTGTATTTCCATAGAC ATTCAAGGTGAACAGATATTTTTGGGATTAGTAACTATTTGAAATATGTGGTGATAATTACTGAGTTTATAAAAT TTATTTGATAGTACACTTAAAGAAGATTTATATGTTTATTCTTTAAAAATGATGATAATACTCATAATTCTTATCTC TATAATCAAAAGTATAATTTACTGTAGAAAAATAAAGAGATGCTTGTTCTGAAAGTAAGATCAGTGAACTGCTTT TCAGTCTCAATCTTTGAGAATTGTAAATTCATCAAATAATTGCTTACATAGTAAAAATTTAAGGTATTAGAAAAC CTGCATAACAAATAGTATTATATATTAAATATTTTGATATGTAAAGCTCTACACAAAGCTAAATATAGTGTAATA AATAGTTTTAAATAAATAAATTGGCTTATCTGGCTTTTTGAAAATTTTTGAAATTCTTACAGATGTTGATTAGGTA ATAAATATAAATAAAATTGTTTACTGTTTTGAAAGTTTCTTAAGTTTTA

#### 526/615

# FIGURE 522

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108720

><subunit 1 of 1, 527 aa, 1 stop.

><MW: 60284, pI: 8.31, NX(S/T): 3

MRSDKSALVFLLLQLFCVGCGFCGKVLVWPCDMSHWLNVKVILEELIVRGHEVTVLTHSK PSLIDYRKPSALKFEVVHMPQDRTEENEIFVDLALNVLPGLSTWQSVIKLNDFFVEIRGT LKMMCESFIYNQTLMKKLQETNYDVMLIDPVIPCGDLMAELLAVPFVLTLRISVGGNMER SCGKLPAPLSYVPVPMTGLTDRMTFLERVKNSMLSVLFHFWIQDYDYHFWEEFYSKALGR PTTLCETVGKAEIWLIRTYWDFEFPQPYQPNFEFVGGLHCKPAKALPKEMENFVQSSGED GIVVFSLGSLFQNVTEEKANIIASALAQIPQKVLWRYKGKKPSTLGANTRLYDWIPQNDL LGHPKTKAFITHGGMNGIYEAIYHGVPMVGVPIFGDQLDNIAHMKAKGAAVEINFKTMTS EDLLRALRTVITDSSYKENAMRLSRIHHDQPVKPLDRAVFWIEFVMRHKGAKHLRSAAHD LTWFQHYSIDVIGFLLTCVATAIFLFTKCFLFSCQKFNKTRKIEKRE

#### Important features of the protein:

Signal peptide:

Amino acids 1-21

#### Transmembrane domain:

Amino acids 489-510

#### N-glycosylation sites:

Amino acids 131-135;313-317;518-522

#### cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 67-71;340-344

#### Tyrosine kinase phosphorylation sites:

Amino acids 122-131;136-144

#### N-myristoylation sites:

Amino acids 19-25;276-282;373-379;377-383

#### Amidation site:

Amino acids 338-342

# FIGURE 523

GGCTGCGGGGTCGGCACGGAAGATGCACGCGAGGCTCCTGGGGGCTCTCGGCCCTGCTGCAGGC GGCCGAACAGAGCGCGCCCTTTACACCGTGGCTTACTACTTCACCACAGGACGGCTTCTGTG GGGGTGGCTGGCCCTTGCTGTCCTCCTGCCCGGGTTCTTGGTCCAGGCCCTGAGCTACCTGTG GTTCCGAGCAGACGGGCATCCAGGGCATTGCTCCTTGGTGATGCTGCACCTCCTACAGCTTGG TGTTTGGAAGCGCACTGGGACGCTGCACTGACCAGTCTGCAGAAGGAACTGGAGGCTCCCCA CCGAGGCTGGCTGCAGCTGCAGGAGGCCGACCTGTCGGCCCTTCGACTCTTGGAGGCCCTGCT GCAGACTGGGCCCCACCTGCTGCTTCAGACATATGTTTTTCTAGCCTCAGACTTCACAGATATT GTGCCAGGGGTGAGCACCCTGTTTTCCTGGTCCTCACTCTCCTGGGCACTGGTGTCCTACACT CGCTTCATGGGCTTCATGAAGCCAGGCCACCTGGCCATGCCATGGGCCGCCCTCTTCTGCCAG CAGCTCTGGAGGATGGGCATGTTGGGAACCCGCGTGCTGAGTCTGGTTCTGTTCTACAAAGCC GCCCAGCAGAGTGACATCATCGACAGCACCTGCCACTGGAGGCTGTTCAACCTGCTCGTGGGG GCCGTGTACATCCTCTGCTACCTCAGCTTCTGGGACAGCCCTTCTAGAAATAGGATGGTCACG TTCTACATGGTCATGCTGTTGGAGAACATCATCCTGTTGCTGTTGGCCACCGACTTTCTCCAG GGGGCATCGTGGACCAGCCTGCAGACCATAGCTGGGGTCCTGTCTGGATTTCTGATTGGCAGT GTCTCACTGGTAATTTATTACAGCCTGCTGCATCCAAAATCCACAGACATCTGGCAGGGCTGC ACAGATCTAGCTGGGAAGAGAACCGAGAGCTCAGGCTCATGCCAAGGGGCAAGTTATGAACCA ACCATTTTAGGGAAGCCCCCTACCCCTGAGCAGGTCCCCCCAGAGGCTGGGGTGGGGACCCAG GTTGCTGTGGAGGACTCTTTCCTCAGTCATCACCACTGGCTGTGGGTGAAACTTGCCCTAAAA ACAGGAAATGTGTCTAAGATCAATGCCGCCTTTGGAGATAACAGTCCTGCCTATTGTCCACCT GCATGGGGGTTGAGTCAACAGGACTACCTGCAGAGAAAGGCCTTGTCTGCCCAGCAAGAGCTC CCATCCTCATCCCGTGACCCCTCAACCTTAGAGAACAGCTCTGCGTTTGAAGGTGTCCCTAAA GCAGAGGCCGACCCATTGGAAACCTCAAGTTACGTATCTTTTGCCAGCGATCAGCAGGATGAA GCACCTACCCAGAACCCAGCAGCCACGCAGGGGGGGGGCACCCCAAAGGAAGGAGCTGACGCT GTTTCTGGGACACAGGGGAAGGGGACAGGTGGGCAGCAGAGAGGAGGGGGAAGGACAGCAGAGT GCTACTCTGCAAACGGCCCACTCTGGAAGGAGGCTGGGAAAGAGCAGCCCTGCCCAGCCTGCA TCGCCCCACCCAGTGGGCTTGGCGCCCTTCCCCGACACCATGGCCGACATTAGCCCCCATCCTA GGCACAGGCCCATGTAGAGGCTTCTGCCCCAGTGCAGGCTTCCCTGGAAGAACCCTCAGTATC TCAGAGCTAGAGGAGCCGCTGGAGCCCAAAAGGGAGCTAAGTCACCATGCAGCTGTTGGTGTG TGGGTGTCATTGCCACAGCTGAGGACTGCCCATGAGCCCTGCCTCACGTCCACCCCTAAGTCT GAGTCTATCCAAACGGACTGCAGCTGCAGGGAACAGATGAAGCAAGAGCCGAGTTTTTTCATC TGACCACAGTCATGGTGGGATAAGACAACAGGCTGACAAACCAAGCTGGCCATTTGGTACCGT GAGAAAGGAAATCCCACTTCTGACACCTGTGTCCTTGGGCACATCACTGTCACCTCTGAATCT CCATCTGCATCCCTGAAAAATGAAGAAACAGGGCTGGATGATTTTGCAGGTCCAATGCAAACA TCACAGACCCCACCCATGCATAGGAGAGACTCTAACATACTTTAGAGGAGGAGAAAGAGATTC CAGTCAAAATTGTCTGCTACCTTTTATGAGCTGTAGGTTCCCTTATTTTATCTTTTTGCTGTG GCTTCTAGGAAACACAAAGGTAAAACCCAGATTCCTATTTTATTTGAGGTTCTTGTTACAATT AGCTTTGCCTCACATTTAGCGGTTATGAATCTCATTTTAATATATTCTAACTGTATTATGTTA TGAAATCTCTTGGTAAGATAATTTGCATGCTTTCTGGGAGTAGGTAAGGCCTGTGTGCTTGTA ATAACTAACATAACTGAAAGTGCAAATGTCA

## FIGURE 524

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108726

><subunit 1 of 1, 686 aa, 1 stop

><MW: 74981, pI: 6.60, NX(S/T): 2

MHARLLGLSALLQAAEQSARLYTVAYYFTTGRLLWGWLALAVLLPGFLVQALSYLWFRAD GHPGHCSLVMLHLLQLGVWKRHWDAALTSLQKELEAPHRGWLQLQEADLSALRLLEALLQ TGPHLLLQTYVFLASDFTDIVPGVSTLFSWSSLSWALVSYTRFMGFMKPGHLAMPWAALF CQQLWRMGMLGTRVLSLVLFYKAYHFWVFVVAGAHWLVMTFWLVAQQSDIIDSTCHWRLF NLLVGAVYILCYLSFWDSPSRNRMVTFYMVMLLENIILLLATDFLQGASWTSLQTIAGV LSGFLIGSVSLVIYYSLLHPKSTDIWQGCLRKSCGIAGGDKTERRDSPRATDLAGKRTES SGSCQGASYEPTILGKPPTPEQVPPEAGLGTQVAVEDSFLSHHHWLWVKLALKTGNVSKI NAAFGDNSPAYCPPAWGLSQQDYLQRKALSAQQELPSSSRDPSTLENSSAFEGVPKAEAD PLETSSYVSFASDQQDEAPTQNPAATQGEGTPKEGADAVSGTQGKGTGGQQRGGEGQQSS TLYFSATAEVATSSQQEGSPATLQTAHSGRRLGKSSPAQPASPHPVGLAPFPDTMADISP ILGTGPCRGFCPSAGFPGRTLSISELEEPLEPKRELSHHAAVGVWVSLPQLRTAHEPCLT STPKSESIQTDCSCREQMKQEPSFFI

### Important features of the protein:

Signal peptide:

Amino acids 1-17

Transmembrane domains:

Amino acids 35-50;269-287;293-313

N-glycosylation sites:

Amino acids 416-420;467-471

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 344-348

N-myristoylation sites:

Amino acids

188-194;288-294;299-305;335-341;338-344;362-368; 390-396;473-479;529-535;536-542;558-564;603-609;

643-649

Amidation sites:

Amino acids 354-358;568-572

Leucine zipper pattern:

Amino acids 112-134

# FIGURE 525A

AGTGCCCTCTGTCATTTAATCTCCACGGAGTCCTGAAGGTGCTTCCCAGGTTTGTCCCCATCACACAGATGAGGC AATCGTTCTGTTAAGACTGTCCTTGGGTCATTATGTCAGCAATGAAATCGGTGCTGCCATTACTAAACCCTTACT TTGTGTGCCTGTGTGCACATGTAGAAAGAAAGTGATGTGTGGGAATGGAGAATTCCAACCCAGGAGGAGACTG TGCCTGGGGCTGCCACGAGAAGTGGTGACACTTCGAGAAACGGGTTCCAAATGCACGTTGCCTTCCAGTTCTCTG TGTGACCTTGGGCAAGTCACTTCAGCTCCCTGAGCTTTGTTTTTAAAAATATTTTTTTAAATGTATAAAACCATGG ACCATTACATATGAAGAGAAATGTGTGTGCAAACATTCAGTTAATAATCACAAGGTGGAGGAGTGCCTGCTCAGA AGCCCGTGCTTATCTGTTCAGTGGAAATGCCATGTGCCACGTTCCTCAGAAGTAAAGCCACTAGGTAAGTGTGAC GTACTGTCACTTCCCCCACTTTGAAGATGAGGAGGAGCACAAATTCTAGATGGAAATGGAGGTCACGCAGTGGAAA TAGGATCCAGACAGATTAATCCAATCTCAAGCCTGAATTCTTCCATTCCACGCTACGCTTGAAGCTCAATCTCTC TTCCTGGTTGATTCTCCCCACTTCCCCACCCCCAGATATATCCCATCGCTGCTTGGTGGACAGTAGCCATGACTG GGTTTTGGTAAAGGTTGCTGAATAATCAGGCTGCTGGTTAGTTTTTACATTTCACCTTTCCCAGTGAAATGGGGC AGGATTTGGGGTAGACACTGGGAATTTACTAATTATGAATTCCAGTGCTTTCCTTGCTGAAAGAGAGGCGTGGAA TCAACGCTGAGTGAAGGCATCAAGTTTAAGCTGCTAATTACTTCCTGATCATGCAGAATAAAAGCTACGTCCCTT GAAATACACCAGGCAGCTAAACATAATCTTTGCGTTTCCGTAGTGTTGGTTAAGGAATCCAGATGTTACTGCAAT AACCACTCCATAAACAAAAGGAACACCCAGCTGTGAGAACTGGCTTCTCAGCATTCGTCCCAGCAGAGGCTCTTC ACGGCTACGGGCACAGCCACAGGCTGAAGGTGAGTCCAGCACACAACTTTCTGACAGTGAACAGGAGTAAACATG GGACCCACCCGAAACCTTTGTCTGTTGACTTCTTAGCAAATGGAGGCAGCTCTAGGCTCTGGAGAGTTCGGGTAT AGGAGACCATGACTTGAGCAGACTGATATAAGTGGAATGCAAACATATTTAGATGGCACAACTTAATTTAGATTT ATCAGTGCTAATATAGAAAAAGCTAGTATTTATTGGGGCTTATTAGATTTTTTAGTCTGAATCCTCACAACTTACG AGGGGGTTCGTTTTACAGACTATGATCTTGCATGATTTCCCCCAAAGATGCTCATTAAGTATATGGTGAAAGTAGA ATTTGAATACAGAAGACCTGGTTCTGCTACTTTCTGTGTTTCTATTTGGTTCAAACCAGCCTTTCTTCTTCAAA ACAACTTCAGTGCAATTCATGGTTTTTGGAAAATAAACTTGATTTTTGAGATTCAGACAATAAGTGCATTTTTAATG CACAGACAGTACAATGACAAATTGGAGATCAGCTCTAATCTCGGCCCCCAATTTAATGCATTGCTGAATATTCTT CTGAACATAGTCCATCCCACACTGTCCCATGACACAAGACGCTCCAAGGGGGCTGAAGATAGAGGGACTTCTGCAG TCAAGAGAGCTGGGAAACTCTTGGACAGTCACAATGTGCATTTGGGTATTAAAGGCTCTGCAAAGTTCTGCACCA AATAAACCCTTGGATTGGCTTGATCCAATGCCATGTTTCCAAAACCTACTTGCCCGTGGGACACCTTAGTCCATA ACACAGGTTGGCATTTCTTCTAGAGAGTGTGCTGTGAAAAACACTGGTCTCACAGCACCGTGCATTCATCCAGCA TGGTGTCTCTCTCATGGGAGAGGCTGCACAGCAGTCATTGAGAAAACGAAGAAACACACAGGTACTTTCAGATG CTGATAATGACTACCATGTGCTAAAAGAGCTCCAGGTGTTGTCTGTTTTTGAGACAATCTTCTCGACAATGAGATA GAATGAACCATGCAAACTTTGGGGGGCTACGATGGTTTTAGGAAAAGAGCTAGAGTGAAAAAATCCTTTGACATATAT ACATACAAATAAAGATACATGTGTATAATTTTATGTAATTGACATCACATTATATGCTGGCACCTGCCTTTTTTG TCCCACTTCTGAAATGATCTCCTTAGAATAAATTCCCCAAATTGTATTGCTGGGTTCAAAGGCATGAACATTTTA CATTTTTATACAATAATGTCAAACTACCTTCCGGAAATGATGCTCACTTTACTTTCCCTCCAAGACTGTGTGAAA ATGCCCATTTTCCTAAATGCTTACTATGACTGGTTTCCAACTACATTTTAATTCTTGTTCAATCTGATAGGCAAA AAATGATATTTAATTTTATTTGATTGATAATGACCTTGAACGTGCCCATTAGCCTTTTGCATGTATTCTTTTAT GAAACATCTGTTCCTATCCTTCGTCAATGTTCCTCTTCATATGTTAACTTTTCTTATTGATTTGTTAGAGCACTT TGTATATTGTGAATATTAGCTTTTGTGATCAGAATTATGGAATTGTTGTTGTCTTTAGTTTTGCTTATCAAGTTT AAAGCCATTCAGAGATGTTGTAAATGTGTATGTTTAAATTTATGTCTTATTTTTGTGTTTTTCTGATGCTCATAT TTTTCATGTAACCCTTTGTTCTTTCAGGAATTTACTTTGCGGTAAGAAATGGGCTTGCCAGTTTTATGTTTC CCAAATGGTGATTCAGCTGTTCCATTTCCCATATTCTCCCCTTATTAGAAATGACCACTATATTATGTTCTAAAATA TCTGCGTACTTGTGTCCCTTTCCTATAATCTCAGTTCATCTCTTTTGAGCTATCTTTTTGATTCCTTTTTCAAACCAC ACTGCTTTACTGAACTGTCATCATCTTATACATTTTTAATACTCAGCAAGACAAGTTTCTCAATGCCACTCTTTT TCAGAGTTTTTCTGGTGGTGGTAAGATGTTTATTCTTCTGGATAAACTTTAGAATCACTCTTTTTGTCCAAGGTA GTCTTCTTATCCAATAAAAAAGATATGAATTTCCATGTATTGAAATCTTCACTGAGACTTATTTTTTGGCTTTTCA

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# FIGURE 525B

CATGTCCTGCAAATGTATTGTTAAATTTATTTTTTAGGTATTTTAGGGGGAAATGATTTTCTAAAGTTTTGTATTTTC
TAGCTTGTTATAATTTACATATGAGATAGTCATTGTTGTATATTATTATTATAACTGATCATATTACTGTATTTGTA
TTGTTTTAATAGTTTTTCTATTATTTTTGGGTTTTCCTGGAATACAACCTTATTATCTACAAATTATGATTGTTTT
GCCTTTTCCAATGTTCATAACTGTTTTTÄTÄTTCTTGTCTGATTGCTTTTGTTCAGCACTTCTAGAATAAAGTCAT
GCAATACTAATGA

# FIGURE 526

</usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108728</pre> <subunit 1 of 1, 100 aa, 1 stop <MW: 10922, pI: 8.81, NX(S/T): 0 MSAMKSVLPLLNPYCVLAFVYACMCVRAHVCVCVYMCMCVLCACVCTCRKKVMCGNGEFQ PRRRLCLGLPREVVTLRETGSKCTLPSSSLCDLGQVTSAP

Important features of the protein: Signal peptide:

Amino acids

1-28

N-myristoylation sites:

Amino acids 80-86;94-100

Prokaryotic membrane lipoprotein lipid attachment sites:

Amino acids 13-24;34-45

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# FIGURE 527

GTGAGACTTCTTCTTCATTGTGGCTAGCTTTGAAAAGACCCTCTGAACTTCCTAAAGATATC TGTGGAGCACTAGCCATACTTCTTTCTTATCTTTACTATGTGTTTAAGGTTGTTCATCTGCAA GCCAGCTTAACAACTTTTAAGAATAGCCAGCCTGTGAATCCCAAACACTCTAGAAGAAGTGAA AAGAAATCCAATCATCATAAAGACTCCTCAATACACCATCTTCGTTTATCTGCCAACGATGCT GAAGATAGCCTTCGCATGCACAGTACTGTGATTAACTTACTAACATGGATTGTATTACTCAGC ATGCCTTCTCTAATTTATTGGCTAAAGAATCTTAGGTATTATTTTAAACTTAATCCTGATCCA TGTAAACCTTTGGCATTTATCCTTATTCCGACTATGGCAATTCTTGGAAATACTTACACTGTT TCAATAAAATCAAGTAAATTGTTGAAGACTACTTCACAATTTCCACTTCCTCTGGCTGTTGGT GTGATTGCTTTTGGGTCAGCACATTTATATAGGCTTCCATGCTTTGTCTTCATTCCTCTTTTA CTCCATGCATTATGCAACTTTATGTAAGATTAAGGAATGATGAAGATAATTTATGTG TTTAGGGCCAGTGATAAGAGGGAACACACAGATCCATCAGTATGGACAGCAAGATCCTTTGGA GAAGACAAGTCTATTTTTACAATATTGAAAATAGGAAATTAGTTTTGTAATGTTTTGAGGGAAG TAGTTGAAGCATGGTTTTGTTTTTGTGGTGTGGAATCCATGTACTAATCATTTTTTGAAAAATTC ATGAAGGGATATATGGTGATCACTATCATTGAGGACTCCTGTGCATATAAAATAGTCTGTTTT ATCAACTGTAAA

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# FIGURE 528

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108738
><subunit 1 of 1, 196 aa, 1 stop
><MW: 22225, pI: 9.90, NX(S/T): 0
MISPDLPFLTIVLIIVSWTTCGALAILLSYLYYVFKVVHLQASLTTFKNSQPVNPKHSRR
SEKKSNHHKDSSIHHLRLSANDAEDSLRMHSTVINLLTWIVLLSMPSLIYWLKNLRYYFK
LNPDPCKPLAFILIPTMAILGNTYTVSIKSSKLLKTTSQFPLPLAVGVIAFGSAHLYRLP

## Important features of the protein:

Signal peptide:

CFVFIPLLLHALCNFM

Amino acids 1-25

#### Transmembrane domains:

Amino acids 91-108;128-143;167-186

## N-myristoylation site:

Amino acids 141-147

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## FIGURE 529

GCGAGCCGGGTCCCACCATGCCGGAATTATTCCAGTACCAGTACCCGGAGAGAACATGTCA AAGTTAAAACCAGCTCCCAGCCAGGCTTCCTGGAACGGCTGAGCGAGACCTCGGGTGGGATGT TTGTGGGGCTCATGGCCTTCCTGCTCTCTTCTACCTAATTTTCACCAATGAGGGCCGCGCAT TGAAGACGGCAACCTCATTGGCTGAGGGGGCTCTCGCTTGTGGTGTCTCCCGACAGCATCCACA GTGTGGCTCCGGAGAATGAAGGAAGGCTGGTGCACATCATTGGCGCCCTTACGGACATCCAAGCTT TTGTCTGATCCAAACTATGGGGTCCATCTTCCGGCTGTGAAACTGCGGAGGCACGTGGAGATG TACCAATGGGTAGAAACTGAGGAGTCCAGGGAGTACACCGAGGATGGGCAGGTGAAGAAGGAG ACGAGGTATTCCTACAACACTGAATGGAGGTCAGAAATCATCAACAGCAAAAACTTCGACCGA GTCCAAATTGGCAGGTTTTTCCTCTCGTCAGGCCTCATCGACAAAGTCGACAACTTCAAGTCC CTGAGCCTATCCAAGCTGGAGGACCCTCATGTGGACATCATTCGCCGTGGAGACTTTTTCTAC CACAGCGAAAATCCCAAGTATCCAGAGGTGGGAGACTTGCGTGTCTCCTTTTCCTATGCTGGA CTGAGCGGCGATGACCTGGGCCCAGCTCACGTGGTCACTGTGATTGCCCGGCAGCGG GGTGACCAGCTAGTCCCATTCTCCACCAAGTCTGGGGGATACCTTACTGCTCCTGCACCACGGG GACTTCTCAGCAGGAGGTGTTTCATAGAGAACTAAGGAGCAACTCCATGAAGACCTGGGGC CTGCGGGCAGCTGGATGGCCATGTTCATGGGCCTCAACCTTATGACACGGATCCTCTAC ACCTTGGTGGACTGGTTTCCTGTTTTCCGAGACCTGGTCAACATTGGCCTGAAAGCCTTTGCC CTGTGGGCCCTCCTCATTGCCGGCCCTGGCCCTTGTGCCCCATCCTTGTTGCTCGGACACGGGTG CCAGCCAAAAAGTTGGAGTGAAAAAGACCCTGGCACCCGGCCCGACACCTGCGTGAGCCCTGAGG CTGGTTGTACAATGCCCACGCCTGCCTGGCTGCTTTCACCTGGGAGTGCTTTCGATGTGGGCA CCTGGGCTTCCTAGGGCTGCTTCTGAGTGGTTCTTTCACGTGTTGTGTCCATAGCTTTAGTCT TCCTAAATAAGATCCACCCACACCTAAGTCACAGAATTTCTAAGTTCCCCAACTACTCTCACA CCCTTTTAAAGATAAAGTATGTTGTAACCAGGACGTCTTAAATGATTCTTTGTGTACCTTTTC TGTCATATTCAGAAACCGTTCTGTGCCTGCTGGGAGTAATTCCTTTAGCAATTAAGTATTTGG TAGCTGAATAAGGGGTCAGAACTTCTGAAACCAGAGATCTGTAATCATCTCTATTGGCCTGGG GGGTTTAGGATTCAATAGTATTCACTAACTGCTTATTACATGAGCAATTTCATCAAATCTCCA AACTCTTAAAGGATGCTTTCGGAAAACACGCTGTATACCTAGATGATGACTAAATGCAAAATC CTTGGGCTTTGGTTTTTTTCTAGTAAGGATTTTAAATAACTGCCGACTTCAAAAGTGTTCTTA AAACGAAAGATAATGTTAAGAAAAATTTGAAAGCTTTGGAAAACCAAATTTGTAATATCATTG TATTTTTTATTAAAAGTTTTGTAATAAATTTCTAAATTATCA

PCT/US01/06520 WO 01/68848

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# FIGURE 530

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108743

><subunit 1 of 1, 400 aa, 1 stop

><MW: 44876, pI: 8.32, NX(S/T): 2

MAANYSSTSTRREHVKVKTSSQPGFLERLSETSGGMFVGLMAFLLSFYLIFTNEGRALKT ATSLAEGLSLVVSPDSIHSVAPENEGRLVHIIGALRTSKLLSDPNYGVHLPAVKLRRHVE MYQWVETEESREYTEDGQVKKETRYSYNTEWRSEIINSKNFDREIGHKNPSAMAVESFMA TAPFVQIGRFFLSSGLIDKVDNFKSLSLSKLEDPHVDIIRRGDFFYHSENPKYPEVGDLR VSFSYAGLSGDDPDLGPAHVVTVIARQRGDQLVPFSTKSGDTLLLLHHGDFSAEEVFHRE LRSNSMKTWGLRAAGWMAMFMGLNLMTRILYTLVDWFPVFRDLVNIGLKAFAFCVATSLT LLTVAAGWLFYRPLWALLIAGLALVPILVARTRVPAKKLE

### Important features of the protein:

#### Transmembrane domains:

Amino acids 34-53;365-388

### N-glycosylation site:

Amino acids 4-8

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 140-144

#### Tyrosine kinase phosphorylation sites:

Amino acids 99-107;220-227

#### N-myristoylation sites:

Amino acids

35-41;93-99;310-316

### Cell attachment sequences:

Amino acids 221-224;268-271

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# FIGURE 531

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# FIGURE 532

</usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108758
<subunit 1 of 1, 100 aa, 1 stop
<MW: 10316, pI: 8.52, NX(S/T): 0
MGNNCYFKSLGAVILPSASATFVVLCVASVPPLILLSFLSLFPPSFPSVFLRSKGYNGGA
NCLAISDKTSLSDCSAHDLPCSLTGSGIRSHQLSAGHLGL</pre>

Important features of the protein: Signal peptide:

Amino acids 1-47

N-myristoylation site:

Amino acids 58-64

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## FIGURE 533

CGGGGTGTACGAAAGAGAAACCCGGAGGGCCCCGGGGACTGGGCCCGGGGTCTGCAGGCTCAG CTGAGCCCATGAGCTCCCAGAGCTAACCCCTGAACACCCAGGCGGGCAAAGGGCTGATGTCGG TAGTCCCCATCCTGGAGGGCAGGCTCTGCGCATCTGCTCCTGGCATGGCGCTGCGGCACCTC GCCCTCCTGGCTGGCCTTCTCGTGGGAGTCGCCAGCAAGTCCATGGAGAACACGGCCCAGCTG CCCGAGTGCTGTGGGGTGGGGGGGCGTCAACGCCAGCTGCCCAGGCGCAAGTCTGTGTGGT CCAGGCTGTTACAGGCGCTGGAACGCGGACGGGAGCGCCAGCTGCGTCCGCTGTGGGAACGGA ACCCTCCCAGCCTACAACGGCTCCGAGTGTAGAAGCTTTGCTGGCCCGGGTGCGCCATTCCCC ATGAACAGAAGCTCAGGGACCCCCGGGCGGCCACATCCTGGGGCTCCGCGCGTGGCCGCCTCC CTCTTCCTGGGCACGTTCTTCATTAGCTCCGGCCTCATCCTCTCCGTAGCTGGGTTCTTCTAC CTCAAGCGCTCCAGTAAACTCCCCAGGGCCTGCTACAGAAGAAACAAAGCTCCGGCCCTGCAG CCTGGCGAAGCCGCTGCAATGATCCCCCCGCCACAGTCCTCAGACGTGGGGTCTGCAGGAAAG GAGGACCCACCACGACAGGGCAGACCCCCAATACCTGCTCCTCCTTGAAGTCCAGCTCCACCC GAGGACAGACGCAGCCGCCTCCGCCAGGCCCTCCTGAGCAGCCATCGCTTCAGTGGTGCTGG GTCAGGCGGACCCAAGAGTCAGCCCGTACGGAAGCCGCGCTACGTCAGGCGGGAGCGGCCCCT GGACAGGGCCACGGATCCCGCTGCCTTCCCGGGGGAGGCCCGTATCAGCAATGTCTGACCTGG AGGCCGAGACCACGCCACGCACTTGGCGGCAGGGACCCGGAGGCCGACCCCTTGGCGGGAACC AGCACAAAGTGTTGGCATCGCCCGGCCCCGGGACAGTCCTGGGCACAGCCTCGGCTCTGGGT CCCTCCGCCTCCCAGCGACGCCCAAAGGGTCCCGGGCCGCCTGAGGCTCCTCCCCACCAC AGCCATCTCGTTTATCGGACCAGGAGCAGGCATCCATGAGACCTCAGAGCTTCAGATCGAGGC CTTGGGGGGTCCGGGCCCCCCAGGAAACACGGTGAGGCCCCAGCGCCTGCAGCCAAAGCTGG CACGATCTATGGGGCAGGTGCCGCTCTGCCTAGAAAAGCCAGGGGCTCTGCTGCCGTGCCCTC CAGAGCCCACAGCGGGCAGGACTCCTCCAGCACCACCACCAGTGGCCCGAGACCCCTCTG AGAACAGTGAGGCTGGTCCTCGTGCCGTTCCAGCCGGTGCCCGGCCAGTGGGGAGGACACAGC CTAGGAACCAGCTGCCTGAGACCAGGGTGCCTCTGGGCTGTCCTCCCGCGTGGCGGAGACCCC AAGCACGCAGCCACTTTCCGGAGCTGCAGGATAGAGCTTCCTCTTGATCTCTGTTTTTAAG CAGAAATTCATTGTGCAGAAAAGTCCTCCAGAGCTCTGTGGCCCCGCTCGGATCCGCTGGACC CCCATGCCTGGCTGATCCCTGCCCACGTGGGGCAGGCCCACATCTAACCCCCACAAGTCACTG GAGAAAGGCGCCGTCGTGGCCGCCTCCCGCACGCCAGGCCCGGGCTCCACCGTGGGTCTCAGA CGCCCTGCGCCACCGCCACCGTCTGCTTTAGCATGGGACCCCCATCTGAGGGGTGGCCTGGCC TTCGGGGTCCCCACGCTCCTTTGCGAAGTCCACTGTGGGTGCCATCATGGTCTCCGGGACCTG 

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# FIGURE 534

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108765
><subunit 1 of 1, 189 aa, 1 stop
><MW: 19464, pI: 9.60, NX(S/T): 4
MALRHLALLAGLLVGVASKSMENTAQLPECCVDVVGVNASCPGASLCGPGCYRRWNADGS
ASCVRCGNGTLPAYNGSECRSFAGPGAPFPMNRSSGTPGRPHPGAPRVAASLFLGTFFIS
SGLILSVAGFFYLKRSSKLPRACYRRNKAPALQPGEAAAMIPPPQSSDVGSAGKEDPPRQ
GRPPIPAPP

# Important features of the protein:

Signal peptide:

Amino acids 1-18

#### Transmembrane domain:

Amino acids 111-129

#### N-glycosylation sites:

Amino acids 38-42;68-72;75-79;92-96

### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 134-138

#### N-myristoylation sites:

Amino acids 11-17;36-42;43-49;59-65;69-75;122-128

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## FIGURE 535

TGGATCTGCGGGAATGTGGGCTGGAGAGGTCCTGCCGTGGTACCAGCCTCCAGCCTGCCCCA GGACTGCCCCTGACCCAGGCGCCCCCCTGCTCGGTGGCAGGAGGGCCCGGCGGAGCGCCATGG CCTGCATCCTGAAGAGAAAGTCTGTGATTGCTGTGAGCTTCATAGCAGCGTTCCTTTTCCTGC TGGTTGTGCGTCTTGTAAATGAAGTGAATTTCCCATTGCTACTAAACTGCTTTGGACAACCTG GTACAAAGTGGATACCATTCTCCTACACATACAGGCGGCCCCTTCGAACTCACTATGGATACA TAAATGTGAAGACACAAGAGCCTTTGCAACTGGACTGTGACCTTTGTGCCATAGTGTCAAACT TGAACAATGCCCCCACCAAAGGTTATGAAGAAGATGTCGGCCGCATGACCATGATTCGAGTTG TGTCCCATACCAGCGTTCCTCTTTTGCTAAAAAACCCTGATTATTTTTTCAAGGAAGCGAATA CTACTATTTATGTTATTTGGGGGACCTTTCCGCAATATGAGGAAAGATGGCAATGGCATCGTTT ACAACATGTTGAAAAAGACAGTTGGTATCTATCCGAATGCCCAAATATACGTGACCACAGAGA AGCGCATGAGTTACTGTGATGGAGTTTTTTAAGAAGGAAACTGGGAAGGACAGTACAGAGTGAC AAACAAATACCCATGTCAGTGGTTCAAAGATTAAGATTGTGGCTTTGTGTAAAGTTCTTTCCC TTGTGGTATGTGTAAATATTTTTAAATGTTGTCTCTCTGTTTTGATCAGTTTTTGTTT TATTCAATTTGTCTTTATTAAATCTTATCAAAGCA

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# FIGURE 536

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108783

><subunit 1 of 1, 210 aa, 1 stop

><MW: 24022, pI: 9.51, NX(S/T): 1

MACILKRKSVIAVSFIAAFLFLLVVRLVNEVNFPLLLNCFGQPGTKWIPFSYTYRRPLRT HYGYINVKTQEPLQLDCDLCAIVSNSGQMVGQKVGNEIDRSSCIWRMNNAPTKGYEEDVG RMTMIRVVSHTSVPLLLKNPDYFFKEANTTIYVIWGPFRNMRKDGNGIVYNMLKKTVGIY PNAQIYVTTEKRMSYCDGVFKKETGKDSTE

#### Important features of the protein:

Signal peptide:

Amino acids 1-27

#### N-glycosylation sites:

Amino acids 148-152

### cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 6-10;191-195;201-205

#### N-myristoylation sites:

Amino acids 41-47;87-93;91-97;167-173;178-184

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## FIGURE 537

GTTTTATTGACAATACATGCATCATATCTTTTGACTTTGAAGGATATCTCATGTCAAAGGAAT ACGCCTACCGAGACATGAAGGTTTTAGCCACTAGTTTTGTCCTTGGGAGCCTGGGGTTGGCCT TCTACCTGCCTTTGGTGGTGACTACACCTAAAACACTGGCCATCCCTGAGAAGCTGCAAGAAG CTGTGGGGAAAGTTATCATCAATGCCACAACCTGTACTGTCACCTGTGGCCTTGGCTATAAGG AGGAGACCGTCTGTGAGGTGGGCCCTGATGGAGTGAGAAGGAAATGTCAGACTCAGCGCTTAGAA TGTCTGACCAACTGGATCTGTGGGATGCTCCATTTCACCATTCTCATTGGCAAGGAATTTGAG CTTAGCTGTCTGAGTTCAGACATCTTGGAGTTTGGACAGGAAGCTTTCCGGTTCACCTGGAGA CTTGCTCGAGGTGTCATCTCCACTGACGATGAGGTCTTCAAACCCTTTCAAGCCAACTCCCAC TTTGTGAAGTTTAAATATGCTCAGGAGTATGACTCTGGGACATATCGCTGTGATGTGCAGCTG GTGAATCTGAATTTCCATCAGTCACTTACTGAGGATCAGAAGTTAATAGATGAGGGATTGGAA GTTAATCTGGACAGCTACTCCAAGCCTCACCACCCAAAGTGGAAAAAGAAGGTGGCGTCAGCC TTGGGAATAGGAATTGCCATTGGAGTGGTTGGTGGCGTGTTGGTGAGGATTGTCCTCTGTGCG CTAAGGGGGGCCTGCAGCAG<mark>TGA</mark>CAGCTTCAAGAACTTAACAGCCTTGCTCCTGAAGAACTG GCTGCCCAGGAAGCCAAGCTAGCTTTTTAGGGGAGTGTTCCAGCTGCTGGTAGTGGATCAGCT TAGAGGGAACACTCCCACAGCCAAAAGAATGAGTGGGAGAAATGGAGGGGACAATCTCCTGGG AGCTATGCGCAGTAACCTAACTTCCTTATGTCCCATGGATCTCTTCCTGATCTTCCCTGCCCA TTGGGTACCCAGGAAACTGCAAGCATTGCCTGTGTTCCTGGGAAGAGTTCTAAGAAGCTTGCA TTCATTTTCTACCCTTTATGACTTGGATGCCTCCCCACCTCCATTTCCCCCTCTTCTGAGCTGT CACAGTAA

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# FIGURE 538

></usr/segdb2/sst/DNA/Dnaseqs.min/ss.DNA108789

><subunit 1 of 1, 255 aa, 1 stop

><MW: 28440, pI: 8.92, NX(S/T): 1

MKVLATSFVLGSLGLAFYLPLVVTTPKTLAIPEKLQEAVGKVIINATTCTVTCGLGYKEE TVCEVGPDGVRRKCQTQRLECLTNWICGMLHFTILIGKEFELSCLSSDILEFGQEAFRFT WRLARGVISTDDEVFKPFQANSHFVKFKYAQEYDSGTYRCDVQLVKNLRLVKRLYFGLRV LPPNLVNLNFHQSLTEDQKLIDEGLEVNLDSYSKPHHPKWKKKVASALGIGIAIGVVGGV LVRIVLCALRGGLQQ

### Important features of the protein:

Signal peptide:

Amino acids 1-30

#### Transmembrane domain:

Amino acids 225-244

#### N-glycosylation site:

Amino acids 45-49

#### N-myristoylation sites:

Amino acids 126-132;156-162;204-210;229-235;231-237;235-241

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## FIGURE 539

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# FIGURE 540

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108806
><subunit 1 of 1, 159 aa, 1 stop
><MW: 18865, pI: 9.76, NX(S/T): 0
MKFSPAHYLLPLLPALVLSTRQDYEELEKQLKEVFKERSTILRQLTKTSRELDGIKVNLQ
SLKNDEQSAKTDVQKLLELGQKQREEMKSLQEALQNQLKETSEKAEKHQATINFLKTEVE
RKSKMIRDLQNEDSRKRPRDLQWKIVSMRTMSIYLLMYL

Important features of the protein: Signal peptide:

Amino acids 1-22

N-myristoylation site: Amino acids 54-60

# FIGURE 541

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# FIGURE 542

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA108936

><subunit 1 of 1, 178 aa, 1 stop

><MW: 19472, pI: 5.71, NX(S/T): 0

MSPSGRLCLLTIVGLILPTRGQTLKDTTSSSSADSTIMDIQVPTRAPDAVYTELQPTSPT PTWPADETPQPQTQTQQLEGTDGPLVTDPETHKSTKAAHPTDDTTTLSERPSPSTDVQTD PQTLKPSGFHEDDPFFYDEHTLRKRGLLVAAVLFITGIIILTSGKCRQLSRLCRNRCR

#### Important features of the protein:

Signal peptide:

Amino acids 1-21

#### Transmembrane domain:

Amino acids 147-162

#### Tyrosine kinase phosphorylation site:

Amino acids 45-52

#### N-myristoylation site:

Amino acids 146-152

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## FIGURE 543

CGGCTCGAGGTGAGAAGGAAACTGCAAGAGTGGGGGCAGAGAACCAGAGTGTCAGAGCAAAACC GCTCCGCCTTTGAAGGGTAAAACCCAAGGCGGGCCTTGGTTCTGGCAGAAGGGACGCT**ATG**A CCGCAGAATTCCTCTCCCTGCTTTGCCTCGGGCTGTGTCTGGGCTACGAAGATGAGAAAAAGA ATGAGAAACCGCCCAAGCCCTCCCTCCACGCCTGGCCCAGCTCGGTGGTTGAAGCCGAGAGCA ATGTGACCCTGAAGTGTCAGGCTCATTCCCAGAATGTGACATTTGTGCTGCGCAAGGTGAACG ACTCTGGGTACAAGCAGGAACAGAGCTCGGCAGAAAACGAAGCTGAATTCCCCTTCACGGACC TGAAGCCTAAGGATGCTGGGAGGTACTTTTGTGCCTACAAGACAACAGCCTCCCATGAGTGGT CAGAAAGCAGTGAACACTTGCAGCTGGTGGTCACAGATAAACACGATGAACTTGAAGCTCCCT CAATGAAAACAGACACCAGAACCATCTTTGTCGCCATCTTCAGCTGCATCTCCCATCCTTCTCC TCTTCCTCTCAGTCTTCATCATCTACAGATGCAGCCAGCACGGTTCATCATCTGAGGAATCCA CCAAGAGAACCAGCCATTCCAAACTTCCGGAGCARGAGGCTGCCGAGGCAGATTTATCCAATA TGGAAAGGGTATCTCTCTCGACGGCAGACCCCCAAGGAGTGACCTATGCTGAGCTAAGCACCA GCGCCCTGTCTGAGGCAGCTTCAGACACCACCCAGGAGCCCCCAGGATCTCATGAATATGCGG CACTGAAAGTGTAGCAAGAAGACAGCCCTGGCCACTAAAGGAGGGGGGGATCGTGCTGGCCAAG GTTATCGGAAATCTGGAGATGCAGATACTGTGTTTCCTTGCTCTTCGTCCATATCAATAAAAT TAAGTTTCTCGTCTTA

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## FIGURE 544

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA119510

><subunit 1 of 1, 236 aa, 1 stop

><MW: 26079, pI: 5.05, NX(S/T): 3

MTAEFLSLLCLGLCLGYEDEKKNEKPPKPSLHAWPSSVVEAESNVTLKCQAHSQNVTFVL RKVNDSGYKQEQSSAENEAEFPFTDLKPKDAGRYFCAYKTTASHEWSESSEHLQLVVTDK HDELEAPSMKTDTRTIFVAIFSCISILLLFLSVFIIYRCSQHGSSSEESTKRTSHSKLPE QEAAEADLSNMERVSLSTADPQGVTYAELSTSALSEAASDTTQEPPGSHEYAALKV

#### Important features of the protein:

Signal peptide:

Amino acids 1-16

Transmembrane domain:

Amino acids 135-153

N-glycosylation sites:

Amino acids 44-48;55-59;64-68

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 171-175

Tyrosine kinase phosphorylation sites:

Amino acids 61-69;87-95

N-myristoylation sites:

Amino acids 12-18;203-209

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## FIGURE 545

GGCGGCCCGGAGCTGGGGAGCGCGGGAAGGCGGTTGGGGGTTCTGACAGCTGCGCGCGATCCTG CTCTCTCTCAGCCGCCTGTGGACATGCGCAAAGGGCCCTCTCCTGAGTCCAGATGATGCTCAT ACCAATGGCTTCAGTGATGGCGGTGACTGAACCGAAATGGGTCTCGGTCTGGAGCCGCTTCCT CTGGGTGACGCTGCTGAGCATGGTGCTGGGGGTCCCTGCTGGCCCTGCTGCTGCCGCTGGGGGC TGTGGAGGAGCAGTGCTTGGCTGTGCTCAAAGGCCTCTACCTGCTCAGGAGCAAACCGGACAG GGCGCAGCATGCCGCCACCAAGTGCACCAGCCCGTCCACGGAGCTCAGCATCACCTCCAGGGG CGCGACGCTGCTGGTGGCCAAGACCAAGGCCTCTCCAGCGGGTAAGTTGGAAGCCAGAGCTGC CCTGAACCAGGCCCTGGAGATGAAGCGCCAGGGCAAGCGGGAAAAAGCCCAAAAGCTCTTCAT GCACGCCCTCAAGATGGACCCGGACTTCGTGGACGCGCTCACCGAGTTTGGCATCTTCTCGGA AGAAGACAAGGACATCATCCAGGCGGACTACTTGTACACCAGAGCATTGACCATCTCACCCTA CCATGAGAAAGCACTGGTCAACCGCGATCGGACACTGCCTCTTGTGGAAGAGATCGACCAGAG GTATTTCAGCATCATCGACAGCAAAGTGAAGAAGGTCATGTCCATCCCCAAGGGGAACTCAGC TCTGCGCAGGGTCATGGAGGAGACCTACTACCATCACATCTACCACACAGTGGCCATCGAGGG CAACACCCTCACCCTCTCGGAAATCAGGCACATCCTGGAGACCCGCTACGCCGTGCCCGGGAA TCTGGTTTCGCGCATCGGCTCCGTCACCATCAGCGACGTGCTGGAGATCCACAGGCGGGTGCT GGGCTACGTGGACCCCGTGGAAGCCGGCAGGTTTCGGACACACAGGTCCTGGTCGGACACCA CATCCCTCCCCATCCGCAGGATGTGGAAAAGCAGATGCAGGAGTTTGTACAGTGGCTCAACTCC GAGGAAGCCATGAACCTGCACCCAGTGGAGTTTGCAGCCTTAGCCCCATTATAAACTCGTTTAC ATCCACCCTTTCATTGATGGCAACGGGAGGACCTCCCGTCTGCTCATGAACCTCATCCTCATG CAGGCGGCTACCCGCCCATCACCATCCGCAAGGAGCAGCGGTCCGACTACTACCACGTGTTG GAAGCTGCCAACGAGGGCGACGTGAGGCCTTTCATTCGCTTCATCGCCAAGTGTACTGAGACC ACCCTGGACACCCTGCTTTTTGCCACAACTGAGTACTCGGTGGCACTGCCAGAAGCCCAACCC AACCACTCTGGGTTCAAGGAGACGCTTCCTGTGAAGCCCTAAACCCTAGAAATCCTCAGTGACA AAGGCTGTCCTGAGGTAGGAAA

#### 551/615

# FIGURE 546

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA119517

><subunit 1 of 1, 458 aa, 1 stop

><MW: 51778, pI: 7.81, NX(S/T): 2

MMLIPMASVMAVTEPKWVSVWSRFLWVTLLSMVLGSLLALLLPLGAVEEQCLAVLKGLYL LRSKPDRAQHAATKCTSPSTELSITSRGATLLVAKTKASPAGKLEARAALNQALEMKRQG KREKAQKLFMHALKMDPDFVDALTEFGIFSEEDKDIIQADYLYTRALTISPYHEKALVNR DRTLPLVEEIDQRYFSIIDSKVKKVMSIPKGNSALRRVMEETYYHHIYHTVAIEGNTLTL SEIRHILETRYAVPGKSLEEQNEVIGMHAAMKYINTTLVSRIGSVTISDVLEIHRRVLGY VDPVEAGRFRTTQVLVGHHIPPHPQDVEKQMQEFVQWLNSEEAMNLHPVEFAALAHYKLV YIHPFIDGNGRTSRLLMNLILMQAGYPPITIRKEQRSDYYHVLEAANEGDVRPFIRFIAK CTETTLDTLLFATTEYSVALPEAQPNHSGFKETLPVKP

### Important features of the protein:

Signal peptide:

Amino acids 1-46

### N-glycosylation sites:

Amino acids 275-279;446-450

### Tyrosine kinase phosphorylation sites:

Amino acids 216

216-225;217-225;244-232

#### N-myristoylation sites:

Amino acids

35-41;235-241;266-272;368-374

#### Amidation site:

Amino acids

119-123

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## FIGURE 547

CCTCTGTCTGTGCTCCCATCCCAGGGAGTATAGGTGGAGCCTCCAGAGCCCATGGACAGGGCA TGCTGGGGCTGGCCCAGCCGGTGTCTCTAAGGCACCCCTGGGATCCCCACTGAGCTGG CCTACTTCAGACAGCCAGGGCCCACCCCTCTGGCCCCCTTAGTGTCCAGCTCGTGGCCCCTTG GCATTTCCACAAGACGCCAAG**ATG**GAGATTCCCATGGGGACCCAGGGCTGCTTCTCAAAGAGC CTCCTGCTCTCAGCCTCAATCCTGGTCCTCTGGATGCTCCAAGGCTCCCAGGCAGCTCTCTAC ATCCAGAGATTCCAGAGCAGCCTCAAAAGAACCAGGACCTTCTCCTGTCAGTCCAGGGTGTC CCAGACACCTTCCAGGACTTCAACTGGTACCTGGGGGAGGAGACGTACGGAGGCACGAGGCTA TTTACCTACATCCCTGGGATACAACGGCCTCAGAGGGATGGCAGTGCCATGGGACAGCGAGAC TACCAAGTAGCCATTACCATCAACTCTGAATGGACTATGAAGGCCCAAGACTGAGGTCCAGGTA GCTGAAAAGAATAAGGAGCTGCCCAGTACACACCTGCCCACCAACGCTGGGATCCTGGCGGCC ACCATCATTGGATCTCTTGCTGCCGGGGCCCTTCTCATCAGCTGCATTGCCTATCTCCTGGTG ACAAGGAACTGGAGGGCCAGAGCCACAGACTGCCTGCTCCGAGGGGCCAGGGATCTCTGTCC GAGAAGCCAGAATTGGGCCCTGCTCATGATGCTGGTGACAACAACATCTATGAAGTGATGCCC TCTCCAGTCCTCCTGGTGTCCCCCATCAGTGACACAAGGTCCATAAACCCAGCCCGGCCCCTG CCCACACCCCCACACCTGCAGGCGGAGCCAGAGAACCACCAGTACCAGCAGGACCTGCTAAAC CAGGGAGAGACAAGGCCCCAGCCCTCCTCTGGGAGCCTCACACCTGAGACCAGCAGGACAAG GCCATTGGGGGCTGTGGGGCCGATGAGGTGGACTCAGCCAAAGACTCAGCAGCACATGGGGCA GGTGTCCTGGCAGGGGACAGGACTGTAACAGGCCCAGGTCCTTGTGCAGCCCCTGAATGC ACGCCCGCCTTCGGTCTGTTCCTTCAAGCAAGCTGGCCTGGGCCATGTGCCTGTGAAAGGCAG GCTCTGGCCCCTTTCCATGCCAAAGTCCCCCAAGATCTGGATATCTGGGGACAAGATGGTGGC AACTCCACTAGTGACCCTCAGAGTCTTCTCCCCTTAGGACAAGGCAGACACCCCACCATGCGG GCCTCAGGTGGCAGAGGCCCAGCCTCACAGGCCTGTGGCCCCACACACCAGTCCCAGCAAG CCAGCTGCTGGTCTTGGCCCCCACCCTGAATCTTACTGAGTCCCTCTGGGCAGCAGCTCCCTT CTCCACCCCACCCCAGCACCCGTCCCAAATGTGGCCTCAGCTTGTCCTCCCCTTCCCCAAACT ATGCATTCAGCAATAAATGAGCCTTTGCTGCA

#### 553/615

# FIGURE 548

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA119535</pre>

><subunit 1 of 1, 300 aa, 1 stop

><MW: 32638, pI: 6.02, NX(S/T): 1

MEIPMGTQGCFSKSLLLSASILVLWMLQGSQAALYIQKIPEQPQKNQDLLLSVQGVPDTF QDFNWYLGEETYGGTRLFTYIPGIQRPQRDGSAMGQRDIVGFPNGSMLLRRAQPTDSGTY QVAITINSEWTMKAKTEVQVAEKNKELPSTHLPTNAGILAATIIGSLAAGALLISCIAYL LVTRNWRGQSHRLPAPRGQGSLSILCSAVSPVPSVTPSTWMATTEKPELGPAHDAGDNNI YEVMPSPVLLVSPISDTRSINPARPLPTPPHLQAEPENHQYQQDLLNPDPAPYCQLVPTS

#### Important features of the protein:

Signal peptide:

Amino acids 1-32

#### Transmembrane domain:

Amino acids 159-178

#### N-glycosylation site:

Amino acids 104-108

#### N-myristoylation sites:

Amino acids 6-12;29-35;55-61;91-97;157-163;165-171

## FIGURE 549

GCCACTCACACCATCTGCTAATGGGACAGCTCACTCTTCCCTCCAAACCATGGCCTTGGCTCA AGAGCTTCCTTGTTTCTGGAATGTTCTTTCCTCCAGCTCCAGGTGTTGAAATTCTGCCTGGTC TGGGTCTCCTGTTGAAGGACGCCCTCCACTGGGAAGGATCCTCTTGCCTTCACCACTTGTCTT GTGTTTGACACACATCTTCTCTCACCCTCTAACACAGTTCTCAACCACAGCACTTTTGTCCC TGGAGATGTTGGCAGTGTCCAGAGGCGTGTTGATGGTCCCACTGGGGTTGGGGGGTGCTGCTGCCA CCAGATGGTAGGGAGATGCCAGGGGTGCTGCTCCACACCCTATGGGACACTGCACAGTACACC TGGCCTGTGTCCCCCACAGCGAGAGCTGGCCCTGGGCCAGGCGTGTGTCTTG GTTGGGATCCTCCACAGTGACAGACGGTGCGCTCTGCCCACGTTTCCACACAGCTCTTTTGCT TGTGGAGCTCACCCCTTTGCAGAGAGCTCATTTCCCTGCGGTCTTTGGCCTGCAGAAGTAAAA **TGA**GGGGTGGTGAATTACACCCCTGCTGGTTACACATGGAAAACTCAGGAGTGAGAATTTTGT CTCCCAGTCACCTTTCTCTCCAGTGCCACTACTGCGCTTTCGATGCAGAATAATTCAGTATTT GGCGACTTGAAGTCGGACGAGATGGAGCTGCTCTACTCAGCCTACGGAGATGAGACAGGCGTG CAGTGTGCGCTGAGCCTGCAGGAGTTTGTGAAGGATGCTGGGAGCTACAGCAAGAAGTGGTG GACGACCTCCTGGACCAGATCACAGGCGGAGACCACTCTAGGACGCTCTTCCAGCTGAAGCAG AGAAGAAATGTTCCCATGAAGCCTCCAGATGAAGCCAAGGTTGGGGACACCCTAGGAGACAGC AGCAGCTCTGTTCTGGAGTTCATGTCGATGAAGTCCTATCCCGACGTTTCTGTGGATATCTCC ATGCTCAGCTCTCTGGGGAAGGTGAAGAAGGAGCTGGACCCTGACGACAGCCATTTGAACTTG GATGAGACGACGAGCTCCTGCAGGACCTGCACGAAGCACAGGCGGAGCGCGGCGGCTCTCGG CCGTCGTCCAACCTCAGCTCCCTGTCCAACGCCTCCGAGAGGGACCAGCACCACCTGGGAAGC CCTTCTCGCCTGAGTGTCGGGGAGCAGCCAGACGTCACCCACGACCCCTATGAGTTTCTTCAG TCTCCAGAGCCTGCGGCCTCTGCCAAGACCTAACTCTAGACCACCTTCAGCTCTTTTATTTTA TTTTTTTAGTTTTTTGCACGTGTAGAGTTTTTGTCATCAGACAAGGACTTTGATCCTGTC GAGTCTCCAAGCCCCACGAACCCTGAGGAGTGGAGTCATACGCGAAGGCCATATGGCCATCGT GTCAGCAGAGAGTCTCTGTACACAGCCCCGTGAACCCTGAGGAGTGGAGTCATACACGAAG GGCGTGTGGCCATCGTGTCAGCAGAGAGAGTCTCTGTACACAGCCCCGTGAACCCTGAGGAGTGG AGTCATACGCGAAGGGTGTGTGGCCAGGCTGCAGAGCTGCCGTGCCGTTTGTGTCCGAGCATCA TCGCTCTTGGGAGGCACAGGCATGGGTGTGTCTTGGCCTCATTCTGTATCAGTCCAGTGTGTTC CTGTCATAGTTTGTGTCTCCCAGGCAGGCCATGGTAGGGGCCCTCGCAGGGGCCATTGGGGAGC ACAGGCCAGGCTGGGGTGAGGAGGAGCTCCCCTGTTTTCTGTTTAATTGATGAGCCTGGGAAA GGAGTGTTCTGCCTGCCCGTTACAGTGGAGCGTTCCGTGTCCATAAAACGTTTTCTAACTG GGAA

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# FIGURE 550

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA119537
><subunit 1 of 1, 104 aa, 1 stop
><MW: 11136, pI: 8.20, NX(S/T): 0
MLAVSRGVLMVPLGLGVLLAPDGREMPGVLLHTLWDTAQYTWPVSPTARAGPGQAWSLRC
VLVGILHSDRRCALPTFPHSSFACGAHPFAESSFPCGLWPAEVK

Important features of the protein: Signal peptide:

Amino acids 1-20

N-myristoylation sites:

Amino acids 53-59;64-70;97-103

Prokaryotic membrane lipoprotein lipid attachment site:

Amino acids 74-85

# FIGURE 551

CGCCCTTAGCATGGGTTTCTGCCGCAGCGCCCTGCACCCGCTGTCTCTCCTGGTGCAGGCCATCATGCTGGCCAT GACCCTGGCCCTGGGTACCTTGCCTGCCTTCCTACCCTGTGAGCTCCAGCCCCACGGCCTGGTGAACTGCAACTG GCTGTTCCTGAAGTCTGTGCCCCACTTCTCCATGGCAGCACCCCGTGGCAATGTCACCAGCCTTTCCTTGTCCTC CAACCGCATCCACCACCATGATTCTGACTTTGCCCACCTGCCCAGCCTGCGGCATCTCAACCTCAAGTGGAA CTGCCCGCCGGTTGGCCTCAGCCCCATGCACTTCCCCTGCCACATGACCATCGAGCCCAGCACCTTCTTGGCTGT GCCCACCCTGGAAGAGCTAAACCTGAGCTACAACATCATGACTGTGCCTGCGCTGCCCAAATCCCTCATATC CCTGTCCCTCAGCCATACCAACATCCTGATGCTAGACTCTGCCAGCCTCGCCGGCCTGCATGCCCTGCGCTTCCT CCTGGGCAGCCTCACCCACCTGTCACTCAAGTACAACCACCTCACTGTGGTGCCCCGCAACCTGCCTTCCAGCCT GGAGTATCTGCTGTTGTCCTACAACCGCATCGTCAAACTGGCGCCTGAGGACCTGGCCAATCTGACCGCCCTGCG TGTGCTCGATGTGGGCGGAAATTGCCGCCGCTGCGACCACGCTCCCAACCCCTGCATGGAGTGCCCTCGTCACTT ATGCATCACTAAAACCAAGGCCCTCCAGGGCCTAACACAGCTGCGCAAGCTTAACCTGTCCTTCAATTACCAAAA CGGCATCTTCTTCCGCTCACTCGATGAGACCACGCTCCGGCCACTGGCCCGCCTGCCCATGCTCCAGACTCTGCG TCTGCAGATGAACTTCATCAACCAGGCCCAGCTCGGCATCTTCAGGGCCTTCCCTGGCCTGCGCTACGTGGACCT GTCGGACAACCGCATCAGCGGAGCTTCGGAGCTGACAGCCACCATGGGGGAGGCAGATGGAGGGGAGAAGGTCTG GCTGCAGCCTGGGGACCTTGCTCCGGCCCCAGTGGACACTCCCAGCTCTGAAGACTTCAGGCCCAACTGCAGCAC CCTCAACTTCACCTTGGATCTGTCACGGAACAACCTGGTGACCGTGCAGCCGGAGATGTTTGCCCAGCTCTCGCA TCTGCAGGTGCTAGACCTGTCCCACAATAAGCTGGACCTCTACCACGAGCACTCATTCACGGAGCTACCACGACT GGAGGCCCTGGACCTCAGCTACAACAGCCAGCCCTTTGGCATGCAGGGCGTGGGCCACAACTTCAGCTTCGTGGC TCACCTGCGCACCTGCGCCACCTCAGCCTGGCCCACAACAACATCCACAGCCAAGTGTCCCAGCAGCTCTGCAG TACGTCGCTGCGGCCCTGGACTTCAGCGGCAATGCACTGGGCCATATGTGGGCCGAGGGAGACCTCTATCTGCA CTTCTTCCAAGGCCTGAGCGGTTTGATCTGGCTGGACTTGTCCCAGAACCGCCTGCACACCCTCCTGCCCCAAAC CCTGCGCAACCTCCCCAAGAGCCTACAGGTGCTGCGTCTCCGTGACAATTACCTGGCCTTCTTTAAGTGGTGGAG CCTCCACTTCCTGCCCAAACTGGAAGTCCTCGACCTGGCAGGAAACCAGCTGAAGGCCCTGACCAATGGCAGCCT GCCTGCTGGCACCCGGCTCCGGAGGCTGGATGTCAGCTGCAACAGCATCAGCTTCGTGGCCCCCGGCTTCTTTTC CAAGGCCAAGGAGCTGCGAGAGCTCAACCTTAGCGCCCAACGCCCTCAAGACAGTGGACCACTCCTGGTTTGGGCC CCTGGCGAGTGCCCTGCAAATACTAGATGTAAGCGCCAACCCTCTGCACTGCGCCTGTGGGGCGGCCTTTATGGA CTTCCTGCTGGAGGTGCAGGCTGCCGGTCTGCCCAGCCGGGTGAAGTGTGGCAGTCCGGGCCAGCTCCA GGGCCTCAGCATCTTTGCACAGGACCTGCGCCTCTGCCTGGATGAGGCCCTCTCCTGGGACTGTTTCGCCCTCTC GCTGCTGGCTGTGGCTCTGGGCCTGGGTGTGCCCATGCTGCATCACCTCTGTGGCTGGGACCTCTGGTACTGCTT CTTCGTGGTCTTCGACAAAACGCAGAGCGCAGTGGCAGACTGGGTGTACAACGAGCTTCGGGGGCAGCTGGAGGA GTGCCGTGGGCGCTGGGCACTCCGCCTGTGCCTGGAGGAACGCGACTGGCTGCCTGGCAAAACCCTCTTTGAGAA  $\verb|CCTGTGGGCCTCGGTCTATGGCAGCCGCAAGACGCTGTTTGTGCTGGCCCACACGGACCGGGTCAGTGGTCTCTT| \\$ GCGCGCCAGCTTCCTGCTGGCCCAGCAGCGCCTGCTGGAGGACCGCAAGGACGTCGTGGTGCTGGTGATCCTGAG CCCTGACGGCCGCCGCTACGTGCGGCTGCGCCAGCGCCTCTGCCGCCAGAGTGTCCTCTTGGCCCCA CCAGCCCAGTGGTCAGCGCAGCTTCTGGGCCCAGCTGGGCCTGACCAGGGGACAACCACCACTTCTATAA CCGGAACTTCTGCCAGGGACCCACGGCCGAATAGCCGTGAGCCGGAATCCTGCACGGTGCCACCTC

# FIGURE 552

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA119714 ><subunit 1 of 1, 1032 aa, 1 stop

><MW: 115799, pI: 8.61, NX(S/T): 12

MGFCRSALHPLSLLVQAIMLAMTLALGTLPAFLPCELQPHGLVNCNWLFLKSVPHFSMAA PRGNVTSLSLSSNRIHHLHDSDFAHLPSLRHLNLKWNCPPVGLSPMHFPCHMTIEPSTFL AVPTLEELNLSYNNIMTVPALPKSLISLSLSHTNILMLDSASLAGLHALRFLFMDGNCYY KNPCRQALEVAPGALLGLGSLTHLSLKYNNLTVVPRNLPSSLEYLLLSYNRIVKLAPEDL ANLTALRVLDVGGNCRRCDHAPNPCMECPRHFPQLHPDTFSHLSRLEGLVLKDSSLSWLN ASWFRGLGNLRVLDLSENFLYKCITKTKALQGLTQLRKLNLSFNYQKRVSFAHLSLAPSF GSLVALKELDMHGIFFRSLDETTLRPLARLPMLQTLRLQMNFINQAQLGIFRAFPGLRYV DLSDNRISGASELTATMGEADGGEKVWLQPGDLAPAPVDTPSSEDFRPNCSTLNFTLDLS RNNLVTVQPEMFAQLSHLQCLRLSHNCISQAVNGSQFLPLTGLQVLDLSHNKLDLYHEHS FTELPRLEALDLSYNSQPFGMQGVGHNFSFVAHLRTLRHLSLAHNNIHSQVSQQLCSTSL RALDFSGNALGHMWAEGDLYLHFFQGLSGLIWLDLSQNRLHTLLPQTLRNLPKSLQVLRL RDNYLAFFKWWSLHFLPKLEVLDLAGNQLKALTNGSLPAGTRLRRLDVSCNSISFVAPGF FSKAKELRELNLSANALKTVDHSWFGPLASALQILDVSANPLHCACGAAFMDFLLEVQAA VPGLPSRVKCGSPGQLQGLSIFAQDLRLCLDEALSWDCFALSLLAVALGLGVPMLHHLCG WDLWYCFHLCLAWLPWRGRQSGRDEDALPYDAFVVFDKTQSAVADWVYNELRGQLEECRG RWALRLCLEERDWLPGKTLFENLWASVYGSRKTLFVLAHTDRVSGLLRASFLLAQQRLLE DRKDVVVLVILSPDGRRSRYVRLRQRLCRQSVLLWPHQPSGQRSFWAQLGMALTRDNHHF YNRNFCOGPTAE

Important features of the protein:

Signal peptide:

Amino acids 1-30

Transmembrane domain:

Amino acids 818-835

N-glycosylation sites:

Amino acids 64-68;129-133;210-214;242-246;300-304;340-344; 469-473;474-477;513-517;567-571;694-698;731-735

cAMP- and cGMP-dependent protein kinase phosphorylation site: Amino acids 347-351

Tyrosine kinase phosphorylation site:

Amino acids 863-871

N-myristoylation sites:

Amino acids 27-33;41-47;63-69;193-199;361-367;409-415; 563-569;607-613;695-701;794-800;929-935;945-951; 1010-1016

Amidation site:

Amino Acids 974-978

Leucine zipper patterns:

Amino acids 204-226;644-666;814-836

## FIGURE 553

GGCGTGGGACGTGCTGCGGCGTCCTAGCTGGCTTACAGGGCGGCGGCGGGGGTGTGTCCTCT GTTAAGAGTGCTACTCGCCCGGGGTTGATCTGTGCATGCCACTCCTGGGTCAGACGGTGAGGT CGGCGTCTGCGAGGACGCGGCGGTGGAGTAGAAGGGCAGCCGGAGACAGGCCCGGCGCCCCTT CCGAGGCTAGACGGCCCCAGCTTCGCGGGGGATCATGCTGCTGGTGGACCGAGTGCGGGGC CACTGGCGAATCGCCGGGGCTCCTGTTCAACCTGCTGGTGTCCATCTGCATTGTGTTCCTC AACAAATGGATTTATGTGTACCACGGCTTCCCCAACATGAGCCTGACCCTGGTGCACTTCGTG GTCACCTGGCTGGGCTTGTATATCTGCCAGAAGCTGGACATCTTTGCCCCCAAAAGTCTGCCG CCCTCCAGGCTCCTCCTGGCCCTCAGCTTCTGTGGCTTTTGTGGTCTTCACTAACCTTTCT CTGCAGAACACCATAGGCACCTATCAGCTGGCCAAGGCCATGACCACGCCGGTGATCATA GCCATCCAGACCTTCTGCTACCAGAAAACCTTCTCCACCAGAATCCAGCTCACGCTGATTCCT ATAACTTTAGGTGTAATCCTAAATTCTTATTACGATGTGAAGTTTAATTTCCTTGGAATGGTG TTTGCTGCTCTTGGTGTTTTAGTTACATCCCTTTATCAAGTGTGGGGTAGGAGCCAAACAGCAT GAATTACAAGTGAACTCAATGCAGCTGCTGTACTACCAGGCTCCGATGTCATCTGCCATGTTG CTGGTTGCTGTCCCTTCTTTGAGCCAGTGTTTTGGAGAAGGAGGAATATTTGGTCCCTGGTCA GTTTCTGCTTTGCTTATGGTGCTGCTATCTGGAGTAATAGCTTTCATGGTGAACTTATCAATT TATTGGATCATTGGGAACACTTCACCTGTCACCTATAACATGTTCGGACACTTCAAGTTCTGC ATTACTTTATTCGGAGGATATGTTTTATTTAAGGATCCACTGTCCATTAATCAGGCCCTTGGC AGTAGGAGTAAACTGGCACAACGTCCT<u>TAA</u>TTGGGTTTTTGTGGAGAAAAGAATGTTGTCCCA AGAAGATAAAAAATATTGTTAAGTGTGCAAGTTATTA

### 559/615

# FIGURE 554

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA125170

><subunit 1 of 1, 313 aa, 1 stop

><MW: 35066, pI: 9.39, NX(S/T): 5

MALLVDRVRGHWRIAAGLLFNLLVSICIVFLNKWIYVYHGFPNMSLTLVHFVVTWLGLYI CQKLDIFAPKSLPPSRLLLLALSFCGFVVFTNLSLQNNTIGTYQLAKAMTTPVIIAIQTF CYQKTFSTRIQLTLIPITLGVILNSYYDVKFNFLGMVFAALGVLVTSLYQVWVGAKQHEL QVNSMQLLYYQAPMSSAMLLVAVPFFEPVFGEGGIFGPWSVSALLMVLLSGVIAFMVNLS IYWIIGNTSPVTYNMFGHFKFCITLFGGYVLFKDPLSINQALGILCTLFGILAYTHFKLS EQEGSRSKLAQRP

## Important features of the protein:

Signal peptide:

Amino acids 1-27

#### Transmembrane domains:

Amino acids

46-60;75-90;153-167;192-208;221-237

#### N-glycosylation sites:

Amino acids 43-47;92-96;97-101;238-242

#### N-myristoylation sites:

Amino acids 17-23;57-63;140-146;155-161;162-168;283-289

## FIGURE 555

GTTAGGCAGAGCCAAGGTGGTTGCAGACCTGGAATCAGAACAGCTTTTAGACCAACCTGAAAG CAGGAATGTAAGCACTGTTCACAGAGATTTTCGTCTTTGGCTTATTGTGCCTGCAGAGTCTAG TGCTTCTTTGCCAGCTGTGCTGACTCAGCACTCCATGCCTGTTTTCTGGAACCAGTCCCTGGA GCTGGGCCATGTTTTGATTGACAGTGTGGAGCTAGCCCAGCAAGTACTCTACATGCAACCCCC CACCCAGGCACTACCTCTGCTCCTCCTCCATGGCCTCCTGCTACACCGGCAGCTCTATGGAAC AAGGCTGCAGGCACACAGGGGGGGCGCTGGAGTCAAGTGACTCTAACCCAGGTTCTTCAGACCCA TTTCTACGGGGGTCCTCTGGGGGACACTGAGGACAGGGAGGCCCTGATTAGCCTCACACAAGC GCTCATGCCCCTCCCAGCTAAGGGAGCTGGATGCAATGGCAGAGTGCAAGGCCCAGATGCACC TACTGCCCTCACCACC<u>TGAAACCCCGGCTCTGCGGACTGAGTGAGGGCCCCCAAGCCTGGCTGT</u> TGCGACGCCAGAGTCGCGCTCTCTTGAGTGCGCTGCAGCGGAGTTCACCCGTGTGGGTTCCTG AGTCTCGAAGAGGCGCCCAGCTTGCGGAAAGGCGACTGCGGCAACGCCTAGTGCAAGTCAACCG GAGGCTGGAGTCACTGCAGGATCTGCTGACCCACGTGATTCGCCAAGACGAGTCCGACGCCCC GTGGTCAGTGCTGGGGCCAAATGCACGGCGGCCTCTGGAGGGCGTCTTAGAGACCGAGGCTCT AGAACTGAGCCAGTTGGTGGGCACGCTACAACGCGACCTTGATTGCCTGTTGCAGCAGCTGAA GGGCGCACCCCGTGCCCCTCCCGCCGCTGTGCTGCGGTGGCCCACGCTCTCTGGACTGGCCG CCTACCCTTGCCTTGGCGACCTCATGCGCCGGCCGGTCCGCAGCCGCCCTGGCACTGGCTGCG ACAGTTGTCGCGCCGTGGGCAACTGTTGGTTCGTTACTTGGGCGTGGGCGCGGACGCAGCAG TGATGTACCAGAGCGCGTCTTCCACCTGTCAGCCTTTCGCCACCCGCGCCCCCCTGCTGGC ATTGCGTGGGGAAGCTGCCCTGGACCAGAATGTGCCCAGCTCGAATTTCCCTGGTAGCCGAGG CTCGGTCTCCAGTCAGCTCCAGTATAAACGTCTGGAGATGAACAGCAACCCTCTGCACTTCAG GGTGGAGAATGGTCCAAATCCCACGGTTCCAGAGAGAGGGCTGCTGCTGATCGGGCTACAGGT CCTACATGCGGAGTGGGACCCAATAGCTGGAGCCTTGCAGGACAGTCCTTCCAGCCAACCCAG CCCTCTGCCTCCCGTCAGCATCAGCACACAGGCCCCGGGCACCAGTGACCTGCCAGCCCAGC CGACCTGACTGTGTACTCGTGTCCTGTGTACATGGGAGGGCCCCTTGGCACCGCTAAGCTGCA GAGCAGGAACATCGTGATGCATCTGCCTTTACCCACCAAGCTCACCCCCAACACCTGTGTCCA AAGGAGGGTCCATGTGTGCAGCCCACCCCTGTCTTGAGCCCGTCTACCAAAATAAAGTTGTAG TGATTCCA

# FIGURE 556

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA129594

><subunit 1 of 1, 162 aa, 1 stop

><MW: 17598, pI: 6.58, NX(S/T): 1

MPVFWNQSLELGHVLIDSVELAQQVLYMQPPTQALPLLLHGLLLHRQLYGTRLQAHRGR WSQVTLTQVLQTQDQLWASLSNPRAAMQELAASVFYGGPLGDTEDREALISLTQACLSPS SGSWVQPHTPQSLLATLMPLPAKGAGCNGRVQGPDAPTALTT

### Important features of the protein:

Signal peptide:

Amino acids 1-45

#### N-glycosylation site:

Amino acids 6-10

#### N-myristoylation sites:

Amino acids 97-103;144-150

## FIGURE 557

GACCTTGAGCCCTCGAAAGCGACATGGCGGTTCTCTTAAAAGCTGGGCGTTCTCTGCAGTGGCC AAGGAGCTCGAGCTCTCCTACTCCGAAGCCGGGTGGTCAGACCCGCTTATGTGTCAGCATTTC TCCAGGACCAGCCTACCCAAGGACGGTGTGGTACCCAGCACATTCACCTGTCACCAAGCCACC ACTCTGGTTCCAAGGCTGCATCTCTCCACTGGACCAGTGAGAGGGGTTGTCAGTGTTCTGCTCT TGGGGCTGATCCCTGCTGGGTACTTGAATCCCTGCTCTGTGGTGGACTACTCTCTGGCTGCAG CCCTCACCCTGCACAGTCACTGGGGCCTTGGACAAGTGGTTACCGACTACGTTCATGGGGACA CCCTGCCGAAGGCTGCCAGGCCAGGCCTCTTGGCACTCTCAGCTTTGACCTTTGCTGGGCTTTGC TACTTCAATTACCACGATGTCGGCATCTGCAGAGCGGTTGCCATGCTGTGGAAGCTCTGACCT GGGTGCAGCACTTTGATTGTGTGCCTCCTTGCCTCTGCTTTACCAATGCCGTTCACCTCGCAG TGAGGGGGGATGAAGGATAAGCCCATTGGTGGGCAGAATGTCTTCTAATTACATGGTTATTTT CAGAATTTATTTGTTGAGGAAGAGGTTTGAGGAGTTAGGTTCGACCATTCGTGAGTCTGTGTT CCATACTCCACTGAGTGTGGGCACTAGCTCACAGCCTCGCGGTGAGACTGAACATTTCATGAG CTCATGTTGCCTTTGACCACCATTTCTTAAGGAGAGCCAGCTGATTGCTGTCAGGATAAGAGC ATCTCTTCAGCCAGGAGGGAGGCCTGTTCCCTCCTGAGTTAGACTTTGCATGAAGCTCGAAAG TATTCCCTTTGGAACCTCCCATTCTTGTTCAGGTGACACCAGCTCTGTTGATGGCTCTGCTTC TGACAGATTGCAAACAGACTACTCTTCAAATGTATCTCAATTGTGCAGAAGTGAGCTGTCCAA TACTCTGAAAAAACAAGGGGG

# FIGURE 558

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA129793
><subunit 1 of 1, 159 aa, 1 stop
><MW: 17014, pI: 9.38, NX(S/T): 0
MAVLLKLGVLCSGQGARALLLRSRVVRPAYVSAFLQDQPTQGRCGTQHIHLSPSHHSGSK
AASLHWTSERVVSVLLLGLIPAGYLNPCSVVDYSLAAALTLHSHWGLGQVVTDYVHGDTL
PKAARAGLLALSALTFAGLCYFNYHDVGICRAVAMLWKL

# Important features of the protein:

Signal peptide:

Amino acids 1-1

#### Transmembrane domains:

Amino acids 71-88;126-140

### Glycosaminoglycan attachment site:

Amino acids 12-16

#### N-myristoylation sites

Amino acids 8-14;58-64;78-84;108-114;148-154

## FIGURE 559

CCCAGCCCCGCGTTCGGCTGCTCTCGAGGAGGCCGGAGTCCCCGGAGACGATGCGCCCCGCGC AGCCGCCTGCGCGCAGCCGGCTGCCCTTGAGATGGAGTTGCTGCCTCTTTGGCTCTGC CTGGGTTTTCACTTCCTGACCGTGGGCTGGAGGAACAGAAGCGGAACAGCCACAGCAGCCTCC CAAGGAGTCTGCAAGTTGGTGGGTGGAGCCGCTGACTGCCGAGGGCAGAGCCTCGCTTCGGTG CCCAGCAGCCTCCCGCCCCACGCCCGGATGCTCACCCTGGATGCCAACCCTCTCAAGACCCTG TGGAATCACTCCCTCCAGCCTTACCCTCTCCTGGAGAGCCTCAGCCTGCACAGCTGCCACCTG GAGCGCATCAGCCGCGCGCCCTTCCAGGAGCAAGGTCACCTGCGCAGCCTGGTCCTGGGGGAC AACTGCCTCTCAGAGAACTACGAAGAGACGGCAGCCGCCCTCCACGCCCTGCCGGGCCTGCGG AGGCTGGACTTGTCAGGAAACGCCCTGACGGAGGACATGGCAGCGCTCATGCTCCAGAACCTC TCCTCGCTGCGGTCCCTGGCGGGGAACACCATCATGCGGCTGGACGACTCCGTCTTC GAGGGCCTGGAGCGTCTCCGGGAGCTGGATCTGCAGAGGAACTACATCTTCGAGATCGAGGGC GGCGCTTTCGACGGCCTGGCTGAGCTGAGGCACCTCAACCTGGCCTTCAACAACCTCCCCTGC ATCGTGGACTTCGGGCTCACGCGGCTGCGGGTCCTCAACGTCAGCTACAACGTCCTGGAGTGG TTCCTCGCGACCGGGGGAGAGGCTGCCTTCGAGCTGGAGCGCTGGACCTGTCTCACAACCAG CTGCTGTTCTTCCCGCTGCCCCCAGTACAGCAAGTTGCGGACCCTCCTGCTGCGCGACAAC AACATGGGCTTCTACCGGGACCTGTACAACACCTCGTCGCCGAGGGAGATGGTGGCCCAGTTC CTCCTCGTGGACGCAACGTGACCAACATCACCACCGTCAGCCTCTGGGAAGAATTCTCCTCC AGCGACCTCGCAGATCTCCGCCTTCCTGGACATGAGCCAGAACCAGTTCCAGTACCTGCCAGAC GGCTTCCTGAGGAAAATGCCTTCCCTCTCCCACCTGAACCTCCACCAGAATTGCCTGATGACG CTTCACATTCGGGAGCACGAGCCCCCGGAGCGCTCACCGAGCTGGACCTGAGCCACAACCAG CTGTCGGAGCTGCACCTGGCTCCGGGGCTGGCCAGCTGCCTGGGCAGCCTGCGCTTGTTCAAC CTGAGCTCCAACCAGCTCCTGGGCGTCCCCCCTGGCCTCTTCGCCAATGCTAGGAACATCACTAC ACTTGACATGAGCCACAATCAGATCTCACTTTGTCCCCTGCCAGCTGCCTCGGACCGGGTGGG CCCCCCTAGCTGTGGGATTTCAGGAATATGGCATCTTTAAGGAGCCTGTCTCTGGAGGGCTG TGGCCTGGGGGCATTGCCAGACTGCCCATTCCAAGGGACCTCCCTGACCTACTTAGACCTCTC AAGCAACTGGGGGGTTCTGAATGGGAGCCTCGCCCCACTCCAGGATGTTGCCCCCATGTTACA GGTCCTGTCTCAGGAACATGGGCCTCCACTCCAGCTTTATGGCGTTGGACTTCTCTGGGTT TGGGAATCTCAGGGACTTAGATCTGTCGGGGAATTGCTTGACCACCTTCCCAAGGTTTGGGGG CAGCCTGGCCCTGGAGACCCTGGATCTCCGTAGAAACTCGCTCACAGCCCTTCCCCAGAAGGC CTGTGGGGTGGATGGCTGGGGGGCCCTGCAGCATGGGCAGACGGTGGCCGACTGGGCCATGGT CACCTGCAACCTCTCCTCCAAGATCATCCGCGTGACGGAGCTGCCCGGGAGGTGTGCCTCGGGA CTGCAAGTGGGAGCGGCTGGGCCTGCTCTACCTCGTGCTCATCCTCCCCAGCTGCCT CACCCTGCTGGTGGCCTGCACTGTCATCGTCCTCACTTTTAAGAAGCCTCTGCTTCAGGTCAT CAAGAGCCGCTGCCACTGGTCCTCCGTTTACTGACCTGGCTGTGTGCCAAGACTCGAAATTCG GTCCGCACACAACAGGACACTTTCTCTGCCAGCTTTCAAGATGTGATGCAGAGGCCAAGTCTG ATTTATTAAGTGACTTTTTCAGAAATAAAAGGCAACGTGTCTCATAAATATTTTTTTAAAAAAA AAAAAAAAAAA

# FIGURE 560

><subunit 1 of 1, 692 aa, 1 stop ><MW: 76366, pI: 6.07, NX(S/T): 11

MELLPLWLCLGFHFLTVGWRNRSGTATAASQGVCKLVGGAADCRGQSLASVPSSLPPHAR MLTLDANPLKTLWNHSLQPYPLLESLSLHSCHLERISRGAFQEQGHLRSLVLGDNCLSEN YEETAAALHALPGLRRLDLSGNALTEDMAALMLQNLSSLRSVSLAGNTIMRLDDSVFEGL ERLRELDLQRNYIFEIEGGAFDGLAELRHLNLAFNNLPCIVDFGLTRLRVLNVSYNVLEW FLATGGEAAFELETLDLSHNQLLFFPLLPQYSKLRTLLLRDNNMGFYRDLYNTSSPREMV AQFLLVDGNVTNITTVSLWEEFSSSDLADLRFLDMSQNQFQYLPDGFLRKMPSLSHLNLH QNCLMTLHIREHEPPGALTELDLSHNQLSELHLAPGLASCLGSLRLFNLSSNQLLGVPPG LFANARNITTLDMSHNQISLCPLPAASDRVGPPSCVDFRNMASLRSLSLEGCGLGALPDC PFQGTSLTYLDLSSNWGVLNGSLAPLQDVAPMLQVLSLRNMGLHSSFMALDFSGFGNLRD LDLSGNCLTTFPRFGGSLALETLDLRRNSLTALPQKAVSEQLSRGLRTIYLSQNPYDCCG VDGWGALQHGQTVADWAMVTCNLSSKIIRVTELPGGVPRDCKWERLDLGLLYLVLILPSC LTLLVACTVIVLTFKKPLLQVIKSRCHWSSVY

# Important features of the protein:

Signal peptide:

Amino acids 1 - 18

#### Transmembrane domain:

Amino acids 651-672

#### N-glycosylation sites:

Amino acids 21-25;74-78;155-159;232-236;292-296;309-313; 312-316;408-414;427-431;500-504;622-626

#### Glycosaminoglycan attachment site:

Amino acids

533-537

### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids

566-570

#### N-myristoylation sites:

Amino acids

24-30;39-45;45-51;141-147;199-205;245-251; 308-314;396-402;416-422;420-426;471-477; 484-490;497-503;522-528;545-551;555-561;610-616

### Prokaryotic membrane lipoprotein lipid attachment site:

Amino acids

657-668

#### Leucine zipper patterns:

Amino acids 48-70;492-514

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# FIGURE 561

TGGCCTACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAGTCACCCGGGCCCGCGGTGGCCACAACAT CCAGTCGGATCTCAGCCACGGACGGCGTTTCTCGGACCTCAAAGTGTGCGGGGACGAAGAGTG CAGCATGTTAATGTACCGTGGGAAAGCTCTTGAAGACTTCACGGGCCCTGATTGTCGTTTTGT GAATTTTAAAAAAGGTGACGATGTATATGTCTACTACAAACTGGCAGGGGGATCCCTTGAACT TTGGGCTGGAAGTGTTGAACACAGTTTTGGATATTTTCCAAAAGATTTGATCAAGGTACTTCA AGGAAGAGATGATTTTAATAGTTATAATGTAGAAGAGCTTTTAGGATCTTTGGAACTGGAGGA CTCTGTACCTGAAGAGGTCGAAGAAGCTGAAGAAGTTTCTCAGCACAGAGAGAAATCTCCTGA GGAGTCTCGGGGGCGTGAACTTGACCCTGTGCCTGAGCCCGAGGCATTCAGAGCTGATTCAGA GGATGGAGAAGGTGCTTTCTCAGAGAGCACCGAGGGGCTGCAGGGACAGCCCTCAGCTCAGGA GAGCCACCCTCACACCAGCGGTCCTGCGGCTAACGCTCAGGGAGTGCAGTCTTCGTTGGACAC TTTTGAAGAAATTCTGCACGATAAATTGAAAGTGCCGGGAAGCGAAAGCAGAACTGGCAATAG TTCTCCTGCCTCGGTGGAGCGGGAGAAGACAGATGCTTACAAAGTCCTGAAAACAGAAATGAG TCAGAGAGGAAGTGGACAGTGCGTTATTCATTACAGCAAAGGATTTCGTTGGCATCAAAATCT AAGTTTGTTTTACAAAGATTGTTTTTTAGTACTAAGCTGCCTTGGCAGTTTGCATTTTTTGAGCC 

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# FIGURE 562

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA131639

><subunit 1 of 1, 303 aa, 1 stop

><MW: 33900, pI: 4.81, NX(S/T): 2

MAAAPGLLFWLFVLGALWWVPGQSDLSHGRRFSDLKVCGDEECSMLMYRGKALEDFTGPD CRFVNFKKGDDVYVYYKLAGGSLELWAGSVEHSFGYFPKDLIKVLHKYTEEELHIPADET DFVCFEGGRDDFNSYNVEELLGSLELEDSVPEESKKAEEVSQHREKSPEESRGRELDPVP EPEAFRADSEDGEGAFSESTEGLQGQPSAQESHPHTSGPAANAQGVQSSLDTFEEILHDK LKVPGSESRTGNSSPASVEREKTDAYKVLKTEMSQRGSGQCVIHYSKGFRWHQNLSLFYK DCF

Important features of the protein:

Signal peptide:

Amino acids 1-22

N-glycosylation site:

Amino acids 294-298

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 30-34

Tyrosine kinase phosphorylation site:

Amino acids

67-76

N-myristoylation sites:

Amino acids

205-211;225-231;277-283

Amidation site:

Amino acids

28-32

## FIGURE 563

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# FIGURE 564

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA131649
><subunit 1 of 1, 153 aa, 1 stop
><MW: 17603, pI: 7.42, NX(S/T): 0
MGLGQPQAWLLGLPTAVVYGSLALFTTILHNVFLLYYVDTFVSVYKINKMAFWVGETVFL
LWNSLNDPLFGWLSDRQFLSSQPRLCGEELLVGSEEADSITLGRYLRQLARHRNFLWFVS
MDLVQVQWLTPVIPALRDAKVERPLEPRSSRLQ

Important features of the protein: Signal peptide:

Amino acids 1-20

N-myristoylation sites:

Amino acids 4-10;12-18;93-99

Leucine zipper pattern:
Amino acids 102-124

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# FIGURE 565

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# FIGURE 566

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA131652
><subunit 1 of 1, 89 aa, 1 stop
><MW: 9688, pI: 11.49, NX(S/T): 0
MHSALATALLLLIPLLLLRRFFDGSALREGGSREKPGPSRRRWAGHSPEPWRSPTLRSGP
GFPSYPLGVPAFVFISPGPSPSQWALPCL

Important features of the protein: Signal peptide:

Amino acids 1-18

Glycosaminoglycan attachment site:

Amino acids 58-62

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# FIGURE 567

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# FIGURE 568

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA131658
><subunit 1 of 1, 164 aa, 1 stop
><MW: 18903, pI: 11.08, NX(S/T): 1
MAAVGSLLGLAASSWLGGQNASDHSLWLLRKPRGSSCPGTGHQLCRLRQSTVKATGPALR
RLHTSSWRADSSRASLTRVHRQAYARLYPVLLVKQDGSTIHIRYREPRRMLAMPIDLDTL
SPEERRARLRKREAQLQSRKEYEQELSDDLHVERYRQFWTRTKK

## Important features of the protein:

Signal peptide:

Amino acids 1-18

### N-glycosylation site:

Amino acids 20-24

#### N-myristoylation sites:

Amino acids 5-11;9-15;17-23;18-24

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# FIGURE 569

GGTGCCAAGGGTTCGGGGGGGAGCACTGAGGCTTTAGCAGCTCTCCTGTATCCTCATTTGCAT GGAGCCCTCCCACACCTTGCTCTGTGTGCCCTCTCATTCTGATTTGAATTCTTATTTTGCTATA TGATGAAGCTGTAATCCTAAGTTTAAAAAGGGGAGTAGGTATTGACATCATGGTAGAAATAGG CTGTCTTATGGAACTGTAGTTAGGGATCACAGCCTATTGGACCAGCCCCAGCCTTAGCAGCAG TTCTGTACACTGATTCTTCCAGATTAGTCTACGTTCCCTCGAACAGACCTATGCCATGGGTTA CAACTACAATTTGTTGTCGATTAGAGTTAACTTACAGACTCTCAAAACCCCATTCTTTGGGTT TAGGCAACTTCCAGAAGTAGTCATTTATTTGAATTTTAGTCTAAGATCAACTGAATTAGGGAG GTTTGAAAGTGTAAAAGCAAATCGTACATTCCCAAACACTTTGTAAAGAAGGAATGGGTAGTG **ATG**CCCACGAGCTCAGCTGTCCTGCTCCGTGTCCTCCATACCCTTGTTGACTGTGCTCATA TTAGCCAGAGACCTAAGTGCTCTTGGAGGATGTCCCTGGGGCCCCCTCCCCCTCCGCTGTCAC TGTCTACTTCCTGATCCTCTTCTGTGCAGGAGGGTCCAGGCCTTCTATGAGGACCTGAGT GGCCGGCAGTACGTGAATGAAGTCTTCAACTTCAGCGTGGACAAGCTCTATGACCTCCTCTTC ACCAACTCGCCCTTCCAGCGGGATTTCATGGAGCAGCGGCGCTTCTCTGATATCATCTTCCAT CCATGGAAAAGGAGGAGAATGGAAACCAGAGCCGAGTGATTCTTTACACCATCACCCTTACC AACCCTCTGGCTCCCAAAACTGCCACTGTCAGGGAGACACAGACCATGTACAAGGCGAGCCAG GAGAGTGAATGTTACGTGATAGATGCCGAAGTCCTCACCCACGACGTGCCCTACCACGACTAC TTCTACACAATCAATCGCTACACGCTCACCCGTGTGGCTCGGAACAAGAGCCGACTCAGGGTC TCCACAGAGCTGCGCTATCGAAAACAGCCCTGGGGGTTAGTGAAAACGTTCATCGAGAAGAAC ACTTATTTGGCTGAGATGCACAGACAATCTCCCAAAGAGAAGGCCAGCAAGACTACAACGGTG CGGAGGAGGAAGCGTCCCCATGCCCACCTGCGAGTCCCTCACCTGGAAGAGGTGATGAGCCCG GTCACCACGCCCACAGATGAGGATGTGGGCCACAGGATCAAACATGTGGCAGGTTCCACACAG ACGCGGCATATCCCGGAGGACACCCCCAACGGTTTCCACCTGCAGAGCGTGTCCAAGCTGCTG CTGGTTATCAGCTGTTCTGGTGCTGCTGGTCATCCTTAACATGATGCTCTTCTACAAACTC TGGATGTTGGAATACACCACGCAGACCCTCACTGCCTGGCAGGGTCTAAGGCTCCAAGAAAGG TTACCCCAGTCTCAGACAGAATGGGCCCAGCTCTTAGAGTCCCAACAAAAGTACCACGATACT GAGCTCCAAAAATGGAGGGAAATCATCAAATCCTCAGTGATGCTCCTTGACCAGATGAAGGAC TCGCTCATCAACCTTCAGAACGGCATCAGGTCCCGCGACTACACGTCGGAAAGTGAAGAAAAG AGGAATCGCTATCAT**TGA**CAAGGCAGGAACAGGGTGGCTGCAAGAGGCCTGTGCAATACATGT ATATACAGATTTTAAAAAAGAGATAATGCCTATGTACCAGGGAGAAGGAGCGGGCCCTCCCGC GCCCTGTGCTGGCCGGAGCAGCGTTTTCTTATGGTGGAGCAGCTGAGGAGGGCAGGAACCGCC TCTCAGCACCGACCTCCCTGATCTCCCTCCTCCCACCCTCTGTTCCCCACCCCTTCCCTTGC TGGCCATTCTTGGCTTTTAGAAGGGAAATGTTGAGCCAAAGTTATGCCTGCGAAGACCCTAAG GTCTCAAAAAGAAGTCTTAAGACGGCATTGCTTAAGGTGCTTCATTCCCTAATCCCCTTTTGA 

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# FIGURE 570

><subunit 1 of 1, 425 aa, 1 stop ><MW: 49786, pI: 8.84, NX(S/T): 3

MPTSSAVLLRVLSIPLLTVLILARDLSALGGCPWGPLPLRCHCLLPDPLFCAGEVQAFYE
DLSGRQYVNEVFNFSVDKLYDLLFTNSPFQRDFMEQRRFSDIIFHPWKKEENGNQSRVIL
YTITLTNPLAPKTATVRETQTMYKASQESECYVIDAEVLTHDVPYHDYFYTINRYTLTRV
ARNKSRLRVSTELRYRKQPWGLVKTFIEKNFWSGLEDYFRHLESELAKTESTYLAEMHRQ
SPKEKASKTTTVRRRKRPHAHLRVPHLEEVMSPVTTPTDEDVGHRIKHVAGSTQTRHIPE
DTPNGFHLQSVSKLLLVISCVLVLLVILNMMLFYKLWMLEYTTQTLTAWQGLRLQERLPQ
SQTEWAQLLESQQKYHDTELQKWREIIKSSVMLLDQMKDSLINLQNGIRSRDYTSESEEK
RNRYH

### Important features of the protein:

Signal peptide:

Amino acids 1-28

Transmembrane domain:

Amino acids 312-334

N-glycosylation sites:

Amino acids 73-77;114-118;183-187

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 97-101

Tyrosine kinase phosphorylation sites:

Amino acids 144-153;188-196

N-myristoylation sites:

Amino acids 201-207;291-297

Leucine zipper pattern:

325-347

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# FIGURE 571

GTAGAGAGTGAAGCAGCAAGACTGCAGAGCCTCATCAAGAAGTGTGGAGTGAAGGGAAGGCTTCAGATGGACAAT TTGTGTGCTGGGGAAAAAATGGAATGTGCTGCAAATTCCCCTGTGGATAAGGGTGGACGGCTGCTCTGTCAACTT TGACCATTTTCAGATTCTGCGGGCCATTGGTAAAGGGAGTTTTGGAAAGGTATGCATCGTGCAGAAGCGAGACAC TAAGAAAATGTATGCAATGAAGTACATGAACAAGCAGAAGTGCATCGAGAGGGATGAGGTTCGGAATGTTTTCCG GGAGCTGCAGATCATGCAAGGGCTGGAGCACCCCTTCCTGGTCAATCTGTGGTACTCCTTCCAGGATGAGGAGGA CATGTTCATGGTGGTGGACCTGCTCGTGGGAGGCGACCTGCGCTACCATCTGCAGCAGAATGTGCATTTCACAGA GGGGACTGTGAAACTCTACATCTGTGAGCTGGCACTGGCCCTGGAGTATCTTCAGAGGTACCACATCATCCACAG AGACATCAAGCCAGACAATATCCTGCTGGATGAACACGGACATGTTCACATTACAGACTTCAACATAGCGACGGT AGTGAAAGGAGCAGAAAGGGCTTCCTCCATGGCTGGCACCAAGCCCTACATGGCTCCAGAAGTATTCCAGGTGTA CATGGACAGAGGCCCCGGATACTCGTACCCTGTCGACTGGTGGTCCCTGGGCCATCACAGCCTATGAGCTGCTGCG GGGCTGGAGGCCGTACGAAATCCACTCGGTCACGCCCATCGATGAAATCCTTAACATGTTCAAGGTGGAGCGTGT CCACTACTCCTCCACGTGGTGCAAGGGGATGGTGGCCCTGCTGAGGAAGCTCCTGACCAAGGATCCTGAGAGCCG CGTGTCCAGCCTTCATGACATACAGAGCGTGCCCTACTTGGCCGACATGAACTGGGACGCGGTGTTCAAGAAGGC ACTGATGCCCGGCTTTGTGCCCAATAAAGGGAGGTTGAACTGCGATCCCACATTTGAGCTTGAAGAGATGATTCT AGAATCCAAGCCACTTCACAAAAAGAAGAAGCGATTGGCAAAGAACAGATCCAGGGATGGCACAAAGGACAGCTG CCCGCTGAATGGACACCTGCAGCACTGTTTGGAGACTGTCCGGGAGGAATTCATCATATTCAACAGAGAGAAGCT CAGGAGGCAGCAGGGCAGCCAGCTCTTGGACACCGACAGCCGAGGGGGAGGCCAGGCCCAAAGCAAGCT CCAGGACGGGTGCAACAACAACCTCCTCACCCACACCTGCACCCGTGGCTGCAGCAGCAGCTGAAGCCACCTTGTTG ACCCCTGAAAACATCAGATGCAGAAAAAGCCCTGGACTTGGAGCTGGGAAGCCTGGGTTCTGGTCCCATCTCCAT GACTGATTCACGTGTGACCTCAGACAAGTCACGCCCTCTCTGTGCCTCCGTTTTCTGCATCTGCCAAAGGGGTTA TATTTATAAAATCATTTTTACGTGCAAAATATAACCTTAATATTTGAAGTGACCCCCATTCCCCAAAGCAATCAA ACCGTCATGACTTTGCAATTTGGCACATCCTAGCTTGTTAGAGGGCACTTCCGAAAAACACAGCCCTGACAGCAA AATAAAGGTCTGATATGTTGGCCCCTTCTATGGAAACAACGCTGCCAAATCCTGGAGCAAAACCTGAAGTGTCTT CATGTGCATTCTCTGGCAGGCCACAGTCCTTCTGAGCTTGTAAGATGGTGCAGCATGCAGACCAGACTTGTCCCC AAGGTCTCAGCGCTGCGGTCTCACTCCCCCCCCATTTAAGAAGACTATCCTTACCTTTAGTTTCAGCAGTCCT CACCACCACCATATCCCCAGTGCTGGGATGGCACACAGGTGTCCATTCAGATGAGAGTTGGGTCGCTGAGCATTG GTTACTCCTGCAGAGTGTAATCAGCACCCCATCCAACTGGCCCGAAAGCCCAGACCTGCAGCAGAACTCTCCAAC TCTCTATCAGCTTTCAGGGTTTTCTCTCCTGGGAAGGGTGTAAAATCAGCTTGTCAGATTCTTCTTACAGAGAGT ATCCAATCGGTATTGGTGGAGCGGCTCCCTATTTATACAATAGGAAGCATGGGTGCTTAGAAAGTTTATTTCAGG AGGAAAATGGGTTCACACAAAAAGCAAACTACATTCTGATCTGCTCAGGGAGAAGCTTGCCTTTGAACTGGAAGA TGTTGGGATGAGCAGGGAAAGCTTAGACTTTGGAGTCAGGTTTGTGTTCAGAATCCAGCCCTGCTGGCTACTAAC TAACTGGGAGACCTTAGGCAAAGCATGCAATCGCTCTGAATGGCAGTTTCCTCATTTTTAAACAGGGATAATAAA ACTAATATTGCAGGGGAGTTACAGGGTTAAATAAGATCCTGTGTGTAACCCCCAAGCATTGGATGACTCATAGAAT AAAAGAAATAGTCAGTGTTTTCCTCCTTTCAACCGAGACTATTTCTGGATTGTGTGCTCCTCGTCAGTTGACTTGT TTTGCACACTTTTCTTTACTTCATGTCCCCATCAACAACCGTCCTGCTCCCCACCTCCCCCAGGAAATAAGGGGC TTAGGGGCAGGAGCTGGAAGTCGCCCTAGGAACACCAGATTTCCTGGTTCTGTTCAAGTTGGCATTTCTTGTTTG GAATAAACTATTTCTTGG

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# FIGURE 572

</usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA136110
<subunit 1 of 1, 364 aa, 1 stop
<MW: 42195, pI: 7.40, NX(S/T): 1
MKYMNKQKCIERDEVRNVFRELQIMQGLEHPFLVNLWYSFQDEEDMFMVVDLLLGGDLRY
HLQQNVHFTEGTVKLYICELALALEYLQRYHIIHRDIKPDNILLDEHGHVHITDFNIATV
VKGAERASSMAGTKPYMAPEVFQVYMDRGPGYSYPVDWWSLGITAYELLRGWRPYEIHSV
TPIDEILNMFKVERVHYSSTWCKGMVALLRKLLTKDPESRVSSLHDIQSVPYLADMNWDA
VFKKALMPGFVPNKGRLNCDPTFELEEMILESKPLHKKKKRLAKNRSRDGTKDSCPLNGH
LQHCLETVREEFIIFNREKLRRQQGQGSQLLDTDSRGGGQAQSKLQDGCNNNLLTHTCTR
GCSS</pre>

#### Important features of the protein:

N-glycosylation site:

Amino acids 285-289

N-myristoylation sites:

Amino acids 123-129;290-296;337-343;339-345;348-354

Serine/Threonine protein kinases active-site signature:

Amino acids 92-105

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# FIGURE 573

CTGAACTGGATGAAACATGTTACAGTCGGCCGAAACATGAGAGGCTGTGTGAGAAGCTGCAGCCGCCGGCAGAGG AGACCTCAGCATCATCTAGAGCCCAGCGCTGGCCCTGCCTCCGCCTGCGCCGCCGCCGCCGTCGCCGTTTCTGTT CCTGCTACTGTCCCACCTAAACAACTCCCGTTACACGGACAAGTGAACATCTGTGGCTGTCCTCTCTTTTCTTC CTCCTCTTCCAACTCCTTCTCCTCCCCACTTCCCAGCCGCAGCAGAAAGCCCCCAACCCAACTGACGCTGGCA CAACTGCAAACGGTGTCATCCGCACAACTTTATCTCGCTCCTCGGGCTCCCCTAAGGCATTGGACCCATCGCCGC TACAGCCCCGCAAACTCCTCCTGGAGCTGCGCCCTAGTGCCCCTGCTGGGCAGTGGCGTTCCCCCCCATCCTCCC GCGCCCAGCCCTGCTGCTCTGGGCAGACGATGCTGAAGATGCTCTCCTTTAAGCTGCTGCTGCTGGCCGTGGCT AATGGGAACCCCCGAAGCGCCTGAAAAGGAGAGACAGGAGGATGATGTCCCAGCTGGAGCTGCTGAGTGGGGGA GAGAATAAGATATTTTCTGTTACCAACAACACAGAATGTGGGGAAGTTACTGGAGGAAATCAAATGTGCACTTTGC TGCAAAGACTATTGCAAAGAATTCTTTTACACTTGCCGAGGCCATATTCCAGGTTTCCTTCAAACAACTGCGGAT GAGTTTTGCTTTTACTATGCAAGAAAAGATGGTGGGTTGTGCTTTCCAGATTTTCCAAGAAAACAAGTCAGAGGA CCAGCATCTAACTACTTGGACCAGATGGAAGAATATGACAAAGTGGAAGAGATCAGCAGAAAGCACAAACACAAC TGCTTCTGTATTCAGGAGGTTGTGAGTGGGCTGCGGCAGCCCGTTGGTGCCCTGCATAGTGGGGATGGCTCGCAA CGTCTCTTCATTCTGGAAAAAGAAGGTTATGTGAAGATACTTACCCCTGAAGGAGAAATTTTCAAGGAGCCTTAT TTGGACATTCACAAACTTGTTCAAAGTGGAATAAAGGGAGGAGGAGAAGAGAGGACTGCTAAGCCTCGCATTCCAT GACCACATTCTTAGGGTTGTGGAATACACAGTATCCAGAAAAAATCCACACCAAGTTGATTTGAGAACAGCCAGA GTCTTTCTTGAAGTTGCAGAACTCCACAGAAAGCATCTGGGAGGACAACTGCTCTTTGGCCCTGACGGCTTTTTG TCAGTGCTACGGCTGGATGTGGACACAGACATGTGCAACGTGCCTTATTCCATACCAAGGAGCAACCCACACTTC AACAGCACCAACCAGCCCCCCGAAGTGTTTGCTCATGGGCTCCACGATCCAGGCAGATGTGCTGTGGATAGACAT CCCACTGATATAAACATCAATTTAACGATACTGTGTTCAGACTCCAATGGAAAAAACAGATCATCAGCCAGAATT CTACAGATAATAAAGGGGAAAGATTATGAAAGTGAGCCATCACTTTTAGAATTCAAGCCATTCAGTAATGGTCCT TTGGTTGGTGGATTTGTATACCGGGGCTGCCAGTCAGAAAGATTGTATGGAAGCTACGTGTTTGGAGATCGTAAT GGGAATTTCCTAACTCTCCAGCAAAGTCCTGTGACAAAGCAGTGGCAAGAAAACCACTCTGTCTCGGCACTAGT GGGTCCTGTAGAGGCTACTTTTCCGGTCACATCTTGGGATTTTGGAGAAGATGAACTAGGTGAAGTTTACATTTTA TCAAGCAGTAAAAGTATGACCCAGACTCACAATGGAAAACTCTACAAAATTGTAGATCCCAAAAGACCTTTAATG CCTGAGGAATGCAGAGCCACGGTACAACCTGCACAGACACTGACTTCAGAGTGCTCCAGGCTCTGTCGAAACGGC TACTGCACCCCCACGGGAAAGTGCTGCTGCAGTCCAGGCTGGGAGGGGGGACTTCTGCAGAACTGCAAAATGTGAG CCAGCATGTCGTCATGGAGGTGTCTGTGTTAGACCGAACAAGTGCCTCTGTAAAAAAAGGATATCTTGGTCCTCAA TGTGAACAAGTGGACAGAAACATCCGCAGAGTGACCAGGGCAGGTATTCTTGATCAGATCATTGACATGACATCT TACTTGCTGGATCTAACAAGTTACATTGTA<u>TAG</u>TTTCTGGGACTGTTTGAATATTCTATTCCAATGGGCATTTAT TTTTTATCCTGTCATTAAAAAAAAAAAAGACTGTTATCCTGCTACACACTCCTGTGATTTCATTCTCTTTTATTAA ATACTCATAACCCCTATATGCGTTGTTGCATAACAGATGATTTTTTAAAATATATACTTCCTTATGCAAAGTAAT TTACACAGAAATTCCATTGTAAATTGATAATGGATTTTTTATGTTACTAGAAGAGAGTTATTTGACTTCCCAGGAA TTTTCTGTCTGTAATCACTAAAGTCAACTTTAATAGAGTTTTGAAACAGTACTGTGCAATCCGATGGATCTAATT AGTGAGCAACTTGATATAAAATTGTAATCTTCATTTTTGTCAGTGTATCCAGTTACAGAATGCTACACACTTACC TTTTTATTGGCTGAGAAATCTGGTTATTTCATCTTAATCTCAAGATTGTTTTCAAGTGTTTTATAATTAAATCAT AATAGCATATTTTAAAATCAAAAA

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### FIGURE 574

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA139592

><subunit 1 of 1, 882 aa, 1 stop

><MW: 98428, pI: 8.89, NX(S/T): 5

MKHVTVGRNMRGCVRSCSRRQRRPQHHLEPSAGPASACAAAAVAVSVPATVPPKQLPLHG
QVNICGCPLLFFLLFQLLLLLPLPSRSRKPPTQLTLAQLQTVSSAQLYLAPRAPLRHWTH
RRVFYFCKVASLYIFLSPPPPSVSGVPYSPANSSWSCALVPLLGSGVPPHPPAPSPCCSG
QTMLKMLSFKLLLLAVALGFFEGDAKFGERNEGSGARRRCLNGNPPKRLKRRDRRMMSQ
LELLSGGEMLCGGFYPRLSCCLRSDSPGLGRLENKIFSVTNNTECGKLLEEIKCALCSPH
SQSLFHSPEREVLERDLVLPLLCKDYCKEFFYTCRGHIPGFLQTTADEFCFYYARKDGGL
CFPDFPRKQVRGPASNYLDQMEEYDKVEEISRKHKHNCFCIQEVVSGLRQPVGALHSGDG
SQRLFILEKEGYVKILTPEGEIFKEPYLDIHKLVQSGIKGGDERGLLSLAFHPNYKKNGK
LYVSYTTNQERWAIGPHDHILRVVEYTVSRKNPHQVDLRTARVFLEVAELHRKHLGGQLL
FGPDGFLYIILGDGMITLDDMEEMDGLSDFTGSVLRLDVDTDMCNVPYSIPRSNPHFNST
NQPPEVFAHGLHDPGRCAVDRHPTDININLTILCSDSNGKNRSSARILQIIKGKDYESEP
SLLEFKPFSNGPLVGGFVYRGCQSERLYGSYVFGDRNGNFLTLQQSPVTKQWQEKPLCLG
TSGSCRGYFSGHILGFGEDELGEVYILSSSKSMTQTHNGKLYKIVDPKRPLMPEECRATV
QPAQTLTSECSRLCRNGYCTPTGKCCCSPGWEGDFCRTAKCEPACRHGGVCVRPNKCLCK
KGYLGPQCEQVDRNIRRVTRAGILDQIIDMTSYLLDLTSYIV

#### Important features of the protein:

#### Transmembrane domains:

Amino acids 63-80;186-201

#### N-glycosylation sites:

Amino acids 152-156;281-285;598-602;629-633;641-645

#### Glycosaminoglycan attachment site:

Amino acids 417-421

cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 856-860

#### N-myristoylation sites:

Amino acids 12-18;413-419;457-463;698-695;720-726;723-729

#### EGF-like domain cysteine pattern signatures:

Amino acids 805-817;837-849

### FIGURE 575

CGGCTCGAGAGCGGGGCAAACTGCTTGGCACCTCTTCAATAGGTGACATTCAATAGATCT CTGGCTTCCTGCTCTGTTTGTTCTGGTTGCCCTGGAAAGCCTGCTGCTCAGCCCATGCCCCGG GACTTCCTCCACCCTCACCAGGACATTCTTTCCATCTCTTGTCTCCTGTGTGCAAGTCCCTTT CTCCTGGATTCCATGTCTTGAATGTTTCTTAATTTACTTCCTCATTTTGGCAGAGGATGTCCT CCAGTTGTTTTCTGGGAATGCTAATATGCAAGTGAACCAG<u>TGA</u>CCTGCAGTTCTGCCCACACA GGGTTAATAACCAATCAGATTCTCTCTTTTCAAGATGGTTAACATAACAGACACCAAGAAAGG GAAGAGGAGCCGACAGCAGAGGGGGAAGCTGAAAAGACGCACAAAGAATGGCCATAAAAGATA TGAGCAACCCCAGCTTTCCAGACAGTCACTTTTCCCAGTGGTCATACCTGGTCTGGAAGATTC CCCATCATCTCGAATAAAGCTGTTGTTGCTTTTAACTCCATGGAGAGACCGAATGGAGTGAGC CCAGCAGGCATGCTGGGCAAGAGAGGTCCCCCGAGTCCCAAATAAGAATTTCAACTAGTATA AAACGAGGCAGCGAACCCACACGTGGAAGTCTGATACCGCTTGCAGAAGGGAATTGAATAGAT TGATCATCCGCGGGATGCTGCCACAAGGAATAATTGAGCACTCATTCAGACACAGGGGAAACC ACCTCCCTGAGAAGACGTTGCAGCTCACTCACCCCAGTGGGCACTGGGAGCCTCTGCTCAGGT GGGAGACAGATGCCCCCCACATGCACATCTGGTGTTTATGAAGCAGATACTGGGGGCTTCATAA ACACAGAAGGGCAGGGAAGTAGCCCCAGGGCATAGTGTGGGGCCTCCTGACTAAAAGTAGCTT GCAAACCCCTGCCTATAACAGCCACTTCCTGGCAGTCATTGTGCCACTTAGGAGCCCTCCTCA CCGCTCTTCCTTTAGTTCCTTCACTCTGTATAGACCCTGCCAGAGCAGCTCAGGGTGGAGCAG CTGCAGCCATGGGACCTGCTCCAGGCAAGGCCCTATGCTACACAGTCCCTGGGGGTGAGGATT CCAGAGGAGTCAATTCCCTACCCGCCCTTCCAGGGGATGGCCGAGATGAGCGTTCCCACAGGG AAAGTGAAAGTTGCAAGGCTGTTGCGGAAACACCAGGGGTTCCATTTAGGTCTTGCTGCTCAT CTCACAGAAAGCCAGTCACTGAGACAAGTATTGTCAGGGAAGAAGGCTTTATCCAGGTGCTAC AGACAGGGTGAACAAGAGATCAGTCTCAAATCCATCATCATCAACTGACTAAAATTAGGGGTT TATATAGCAGGGAAGAATGTAACTACATGTGGGAAAACAGGGATTAACGAGGGCCAAGGAAG AGGAGTTGGCCAACAGGCAGCAGGTGGTCACCTGGGGAATCATGATGGGTGAGGGGTCTGGCT TCTCACTTTCCAGATGTGGGGATCTGGTAAATTTCAGTTTCTTGATACCGTCTGGGAGGATTG CTGGCTGGTTTCCTGAGAAAGGAATTCAGATGACATAAATGTAAATTTCTCCTTGGGTTTCAA GACTGAGAGGGTCAATTTCTAGGTTTATTCAAGAAAAACCATAAACATCAGTTCTATGGGACA ATTGGGCCCATTTCAAGGCTCTGAGGATAAGGGTTAATGAGGGGACAGAGTCGCCTGGAGAAG TTCACTGGGGCCTACAAGAAACTAGAGAGGGCTTCCTGGCAAAGCTCTATGCTGTCTATCCTCT CTTCTCTCCTGCAGGAAGATTCCAGTATAATAGACCCGAGGTGAAAAGGCTTTTGTTCAATA AGTAGAAAACTGAAGGGGGGGGGGGGGCACATGGATTTGAACCAGAGACCGCTTGGCCTGCAG GCAAATGCTGTACCTTCAGTTGCACCCCTCACTTGTTACAGCTGTTTCTGATAAGCACTTGTG CAGCCCCATCAGCACCTCGATTTCTTCTTGGTGAGTCCATGGGAACAGCCCCACTGCAAACAA CCCATTCCTGCTCTCTTTCCTCTAAACCTCAACCTCCTCCTACCTGGCAGTCCACAGGCC TACAGCTTCTCCTCAGTGGGAAAGACATCAGCTTGGAAAACCACTTGGAAAGCCAACGTTATC CTAGAAAAGCTTTTTAAATGACCCAGCAGGACAAGTCTCCGGATGGCCTTGGCCAACCCGGTG CTTCCCTCTTTCTTGGTTGTAGTTCTCAGAATAACTAGAGAATGTACTGGGAGTGTTGTCCT GAGATAAGGAGGAACTGTCCTAAACCTGGACTCTGTTCCCATCACACCTAGAACAGGATGTCC TGCAACGCTTTAGCCCAATGATCCAAGTTGCCCTTGGGGTATAAAACTTGACAGCAGAGGGCG TTCAGGGTCCCTCAGCTGCAGTGTGAAGTGGGACACACAGGTGAGACTCCATCTGCCCTGGGC AGGTTCCTGAGCCTTGGGGGACCAGTTCACCCTACATCCCAGGCTTCTGTTGTCCCTTGCCTG CCTGTAAGGAATAAAGTTGCTTTGCTTA

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# FIGURE 576

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA139608 ><subunit 1 of 1, 80 aa, 1 stop ><MW: 8927, pI: 3.77, NX(S/T): 0MIDLWLPALFVLVALESLLLSPCPGTSSTLTRTFFPSLVSCVQVPFSWIPCLECFLIYFL ILAEDVLQLFSGNANMQVNQ

Important features of the protein: Signal peptide:

Amino acids 1 - 29

Transmembrane domain:

Amino acids 47-62

N-myristoylation sites:

Amino acids 25-31

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# FIGURE 577

ATCGGTTAGCGCCTTGCCATGATTAATCCAGAGCTGCGGGATGGCAGAGCTGATGGCTTCATA
CATCGGATAGTTCCCAAGTTGATACAAAACTGGAAGATTGGCCTTATGTGCTTCCTGAGTATT
ATTATTACTACAGTTTGCATTATTATGATAGCCACATGGTCCAAGCATGCTAAACCTGTGGCA
TGTTCAGGGGACTGGCTTGGAGTGAGAGATAAGTGTTTCTATTTTTCTGATGATACCAGAAAT
TGGACAGCCAGTAAAATATTTTGTAGTTTGCAGAAAGCAGAACTTGCTCAGATTGATACACAA
GAAGACATGGAATTTTTGAAGAGGTACGCAGGAACTGATATGCACTGGATTGGACTAAGCAGG
AAACAAGGAGATTCTTGGAAATGGACAAATGGCACCACATTCAATGGTTGGCCATCAAACTCC
AAATGGTCTTGCAACTGGAGCCTCCGACAATGGCTTCTTCTGCTGGGACCCCTTAGATAGGCC
TCTGAGGGAGCTCTGACTGCCGTTTCCCCCAAAACAATGTCCCCTGTCAGCAGGAAGCAGTTAA
ATCAGTCTTCATCCTTAATATAAACGGCAGTTAGATGTACTTCTTTAGAGGGAGTAAA
TTTATCAATTCAGAGCAATTCATCCTCCTCTTTTCCATCTTTGATTCACAGTTAATAGGCTATA
AATTTTGATAATGTAGAATAAACTACAGAAAACTTCTTG

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# FIGURE 578

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA143292
><subunit 1 of 1, 160 aa, 1 stop
><MW: 18576, pI: 9.29, NX(S/T): 3
MINPELRDGRADGFIHRIVPKLIQNWKIGLMCFLSIIITTVCIIMIATWSKHAKPVACSG
DWLGVRDKCFYFSDDTRNWTASKIFCSLQKAELAQIDTQEDMEFLKRYAGTDMHWIGLSR
KQGDSWKWTNGTTFNGWPSNSKWSCNWSLRQWLLLLGPLR

Important features of the protein: Signal peptide:

Amino acids 1-42

N-glycosylation sites:

Amino acids 78-82;130-134;146-150

N-myristoylation site:
Amino acids 131-137

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## FIGURE 579

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# FIGURE 580

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA144844
><subunit 1 of 1, 145 aa, 1 stop
><MW: 16618, pI: 5.26, NX(S/T): 1
MDTFTVQDSTAMSWWRNNFWIILAVAIIVVSVGLGLILYCVCKWQLRRGKKWEIAKPLKH
KQVDEEKMYENVLNESPVQLPPLPPRNWPSLEDSSPQEAPSQPPATYSLVNKVKNKKTVS
IPSYIEPEDDYDDVEIPANTEKASF

Important features of the protein: Signal peptide:

Amino acids 1-35

Tyrosine kinase phosphorylation site:

Amino acids 61-70

Amidation site:

Amino acids 48-52

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# FIGURE 581

GGCCGCCTCCGCGGGGCTGTGGGAAGCTTGGGCTGTCCCAGGACCGTCAGTCTCCTCTGA CCCTCCCTTTCCCCTTGTGTGTAGGGCCGCCGTCCCACCCCCACCTCGCCGGAGTCCGGGGCG GCCCCGGTGTCCCCTCCGAGCCTGCTGCACTCCACGTCCCCCTACCAGGGCTCCAGCCCCCAG GGAAATCTCCGACCAGGCCCGCCCAGGAGCCAGATCCAGGCTCCTGGAAGAACCATGTCCGGC AGCTACTGGTCATGCCAGGCACACACTGCTGCCCAAGAGGGGCTGCTGTTTGAATTATCTGTG ATGGACTTTCTGGTCCTCTTCTTGTTCTACCTGGCTTCGGTGCTGATGGGTCTTGTTCTTATC TGCGTCTGCTCGAAAACCCATAGCTTGAAAGGCCTGGCCAGGGGAGGAGCACAGATATTTTCC TGTATAATTCCAGAATGTCTTCAGAGAGCCGTGCATGGATTGCTTCATTACCTTTTCCATACG AGAAACCACACCTTCATTGTCCTGCACCTGGTCTTGCAAGGGATGGTTTATACTGAGTACACC TGGGAAGTATTTGGCTACTGTCAGGAGCTGGAGTTGTCCTTGCATTACCTTCTTCTGCCCTAT CTGCTGCTAGGTGTAAACCTGTTTTTTTTCACCCTGACTTGTGGAACCAATCCTGGCATTATA ACAAAAGCAAATGAATTATTATTTCTTCATGTTTATGAATTTGATGAAGTGATGTTTCCAAAG AACTGGTGTGTGCACCGTTTCGACCATCACTGTGTTTTGGGTGAACAACTGCATCGGGGCCTGG AACATCAGGTACTTCCTCATCTACGTCTTGACCTTGACGGCCTCGGCTGCCACCGTCGCCATT GTGAGCACCACTTTCTGGTCCACTTGGTGGTGATGTCAGATTTATACCAGGAGACTTACATC TTTCCACGGATTGTCTTCATGCTGGGCTTTGTCGTGGTTCTGAGCTTCCTCCTGGGTGGCTAC CTGTTGTTTGTCCTGTATCTGGCGGCCACCAACCAGACTACTAACGAGTGGTACAGAGGTGAC CGGAACATTCACTCCCATGGGCTTCGGAGCAACCTTCAAGAGATCTTTCTACCTGCCTTTCCA TGTCATGAGAGGAAGAACAAGAA**TGA**CAAGTGTATGACTGCCTTTG

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## FIGURE 582

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA144857

><subunit 1 of 1, 344 aa, 1 stop

><MW: 39787, pI: 7.44, NX(S/T): 2

MDFLVLFLFYLASVLMGLVLICVCSKTHSLKGLARGGAQIFSCIIPECLQRAVHGLLHYL FHTRNHTFIVLHLVLQGMVYTEYTWEVFGYCQELELSLHYLLLPYLLLGVNLFFFTLTCG TNPGIITKANELLFLHVYEFDEVMFPKNVRCSTCDLRKPARSKHCSVCNWCVHRFDHHCV WVNNCIGAWNIRYFLIYVLTLTASAATVAIVSTTFLVHLVVMSDLYQETYIDDLGHLHVM DTVFLIQYLFLTFPRIVFMLGFVVVLSFLLGGYLLFVLYLAATNQTTNEWYRGDWAWCQR CPLVAWPPSAEPQVHRNIHSHGLRSNLQEIFLPAFPCHERKKQE

### Important features of the protein:

Signal peptide:

Amino acids 1-29

Transmembrane domains:

Amino acids 100-116;201-217;256-275

N-glycosylation sites:

Amino acids 65-69;284-290

N-myristoylation sites:

Amino acids 32-38;77-83;120-126;322-328

Cell attachment sequence:

Amino acids 292-298

DHHC zinc finger domain:

Amino acids 140-204

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## FIGURE 583

CCGCGGAACTGGCAGGCGTTTCAGAGCGTCAGAGGCTGCGGATGAGCAGACTTGGAGGACTCCAGGCCAGAGACT AGGCTGGGCGAAGAGTCGAGCGTGAAGGGGGGCTCCGGGCCAGGGTGACAGGAGGCGTGCTTGAGAGGAAGAAGTT GACGGGAAGGCCAGTGCGACGCCAAATCTCGTGAACCTTGGGGGACGAATGCTCAGGATGCGGGTCCCCGCCCTC CTCGTCCTCTTCTGCTTCAGAGGGAGAGCAGGCCCGTCGCCCCATTTCCTGCAACAGCCAGAGGACCTGGTG GTGCTGCTGGGGGAAGCCCGGCTGCCGTGTGCTCTGGGCGCCTACTGGGGGCTAGTTCAGTGGACTAAGAGTGGG CTGGCCCTAGGGGGCCAAAGGGACCTACCAGGGTGGTCCCGGTACTGGATATCAGGGAATGCAGCCAATGGCCAG CATGACCTCCACATTAGGCCCGTGGAGCTAGAGGATGAAGCATCATATGAATGTCAGGCTACACAAGCAGGCCTC CGCTCCAGACCAGCCCAACTGCACGTGCTGGTCCCCCCAGAAGCCCCCCAGGTGCTGGGCGGCCCCTCTGTGTCT CTGGTTGCTGGAGTTCCTGCGAACCTGACATGTCGGAGCCGTGGGGATGCCCCCCTACCCCTGAATTGCTGTGG GAGAGCACCTTAACCCTGACCCCTTTCAGCCATGATGATGGAGCCACCTTTGTCTGCCGGGCCCGGAGCCAGGCC CACACTGTGCAGGAGGGGAGAGGTCATTTTCCTGTGCCAGGCCACAGCCCAGCCTCCTGTCACAGGCTACAGG TGGGCAAAAGGGGGCTCTCCGGTGCTCGGGGCCCGCGGGCCAAGGTTAGAGGTCGTGGCAGACGCCTCGTTCCTG ACTGAGCCCGTGTCCTGCGAGGTCAGCAACGCCGTGGGTAGCGCCAACCGCAGTACTGCGCTGGATGTGCTGTT CGCGGGAACCCGCTTCCACGGGTAACCTGGACCCGCCGCGGTGGCGCGCAGGTGCTGGGGCTCTGGAGCCACACTG CGTCTTCCGTCGGTGGGGCCCGAGGACGCAGGCGACTATGTGTGCAGAGCTGAGGCTGGGGCTATCGGGCCTGCGG CTGAGGGGCCCTGCTCCAGTGTCTGGTTTTCGCCTCTCCCGCCCCAGATGCCGTGGTCTGGTCTTGGGAT GAGGGCTTCCTGGAGGCGGGGTCGCAGGGCCGGTTCCTGGTGGAGACATTCCCTGCCCCAGAGAGCCGCGGGGGA CTGGGTCCGGGCCTGATCTCTGTGCTACACATTTCGGGGACCCAGGAGTCTGACTTTAGCAGGAGCTTTAACTGC AGTGCCCGGAACCGGCTGGGCGAGGGAGGTGCCCAGGCCAGCCTGGGCCGTAGAGACTTGCTGCCCACTGTGCGG ATAGTGGCCGGAGTGGCCGCTGCCACAACTCTCCTTATGGTCATCACTGGGGTGGCCCTCTGCTGCTGCCGC CACAGCAAGGCCTCAGCCTCTTTCTCCGAGCAAAAGAACCTGATGCGAATCCCTGGCAGCAGCGACGGCTCCAGT TCACGAGGTCCTGAAGAAGAGAGACAGGCAGCCGCGAGGACCGGGGCCCCATTGTGCACACTGACCACAGTGAT GTGAGCCTGAGCCTTGGCGAAGCCCCTGGAGGAGGTCTCTTCCTGCCACCACCCTCCCCCCTTGGGCCCCCAGGG ACCCCTACCTTCTATGACTTCAACCCACACCTGGGCATGGTCCCCCCCTGCAGACTTTACAGAGCCAGGGCAGGC TATCTCACCACACCCCACCCTCGAGCTTCACCAGCTACATCAAACCCACATCCTTTGGGCCCCCAGATCTGGCC CCCGGGACTCCCCCTTCCCATATGCTGCCTTCCCCACACCTAGCCACCCGCGTCTCCAGACTCACGTGTGACAT CTTTCCAATGGAAGAGTCCTGGGATCTCCAACTTGCCATAATGGATTGTTCTGATTTCTGAGGAGCCAGGACAAG CAGTCAGCTCAGCCAAAGGAGATGCCCCAAGTGGGAGCAACATGGCCACCCAATATGCCCACCTATTCCCCGGTG TAAAAGAGATTCAAGATGGCAGGTAGGCCCTTTGAGGAGAGATGGGGACAGGGCAGTGGGTGTTGGGAGTTTGGG GCCGGGATGGAAGTTGTTTCTAGCCACTGAAAGAAGATATTTCAAGATGACCATCTGCATTGAGAGGAAAGGTAG CATAGGATAGATGAAGATGAAGAGCATACCAGGCCCCACCCTGGCTCTCCCTGAGGGGAACTTTGCTCGGCCAAT GGAAATGCAGCCAAGATGGCCATATACTCCCTAGGAACCCAAAATGGCCACCATCTTGATTTTACTTTCCTTAAA GACTCAGAAAGACTTGGACCCAAGGAGTGGGGATACAGTGAGAATTACCACTGTTGGGGCAAAATATTGGGATAA 

# FIGURE 584

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA145841 ><subunit 1 of 1, 708 aa, 1 stop ><MW: 75093, pI: 6.65, NX(S/T): 3MLRMRVPALLVLLFCFRGRAGPSPHFLQQPEDLVVLLGEEARLPCALGAYWGLVQWTKSG LALGGQRDLPGWSRYWISGNAANGQHDLHIRPVELEDEASYECQATQAGLRSRPAQLHVL VPPEAPQVLGGPSVSLVAGVPANLTCRSRGDARPTPELLWFRDGVLLDGATFHQTLLKEG TPGSVESTLTLTPFSHDDGATFVCRARSQALPTGRDTAITLSLQYPPEVTLSASPHTVQE GEKVIFLCQATAQPPVTGYRWAKGGSPVLGARGPRLEVVADASFLTEPVSCEVSNAVGSA NRSTALDVLFGPILQAKPEPVSVDVGEDASFSCAWRGNPLPRVTWTRRGGAQVLGSGATL RLPSVGPEDAGDYVCRAEAGLSGLRGGAAEARLTVNAPPVVTALHSAPAFLRGPARLQCL VFASPAPDAVVWSWDEGFLEAGSQGRFLVETFPAPESRGGLGPGLISVLHISGTOESDFS RSFNCSARNRLGEGGAQASLGRRDLLPTVRIVAGVAAATTTLLMVITGVALCCWRHSKAS ASFSEQKNLMRIPGSSDGSSSRGPEEEETGSREDRGPIVHTDHSDLVLEEEGTLETKDPT  $\verb"NGYYKVRGVSVSLSLGEAPGGGLFLPPPSPLGPPGTPTFYDFNPHLGMVPPCRLYRARAG"$ YLTTPHPRAFTSYIKPTSFGPPDLAPGTPPFPYAAFPTPSHPRLQTHV

#### Important features of the protein: Signal peptide:

Amino acids 1-20

#### Transmembrane domain:

Amino acids 511-531

#### N-glycosylation sites:

Amino acids 143-147;301-305;484-488

#### N-myristoylation sites:

Amino acids 48-54;60-66;79-85;139-145;180-186;183-189;355-361;383-389; 387-393;460-466;473-479;494-500;495-501;514-520;528-534; 554-560;592-598;608-614

#### Amidation site:

Amino acids 500-504

#### Cell attachment sequence:

Amino acids 149-152

#### Multicopper oxidases signature 1:

#### Immunoglobulin domain:

Amino acids 326-377

## FIGURE 585

GCCCGCCTGAGGAAGCCGTGTGCCTGGGATGCCAAGAGCCAGAGAATGGATCTTCTCCGAGTG GGGACATTGCTGACAATCCCGGCTTCCCGAGGCGGCTAAGAACAGGCAGTTTGTGTCGGCTGG CTGCAGATACCCAGAGGCACAAAGAGACCGAAGCCACCGGAGGGACCCACGGACGGACAGAT GGTAGGCGCGAACCCGAGAGGACCGGCGGAGGCTGAGCACCGAGAGCCGCCAAGGAAGAAAA CTAACCACAGCCAAGTTACCCCGCCGGCTTTCCTTCGCTGCGCTAAGGAATGAAACCCTTCCA GCTCGATCTGCTCTTCGTCTTCCTCTTCAGTCAAGAGCTGGGCCTCCAGAAGAGAGG CTATTCCTTCAGCCAGCAGCCCCAGGACCAGGTGGTGGTGGTGTCGGGACAGCCAGTGACGCTACT TTGCGCCATCCCCGAATACGATGGCTTCGTTCTGTGGATCAAGGACGGCTTGGCTCTGGGTGT GGGCAGGGACCTCTCAAGTTACCCACAGTACCTGGTGGTAGGGAACCACCTGTCAGGGGAGCA CCACCTGAAGATCCTGAGGGCAGAGCTGCAAGACGATGCGGTGTACGAGTGCCAGGCCATCCA GGCCGCCATCCGCCCCCGCCCCGCACGCCTCACAGTCCTGGTGCCGCCTGATGACCCCGTCAT CCTGGGGGGCCCTGTGATCAGCCTGCGTGCGGGGGACCCTCTCAACCTCACCTGCCACGCAGA CAATGCCAAGCCTGCAGCCTCCATCATCTGGTTGCGAAAGGGAGAGGTCATCAATGGGGCCAC CTACTCCAAGACCCTGCTTCGGGACGCCAAGCGGGAGAGCATCGTCAGCACCCTCTTCATCTC CCCTGGTGACGTGGAGAATGGCCAGAGCATCGTGTGTCGTGCCACCAACAAAGCCATCCCCGG AGGAAAGGAGACGTCGGTCACCATTGACATCCAGCACCCTCCACTGGTCAACCTCTCGGTGGA GCCACAGCCAGTGCTGGAGGACAACGTCGTCACTTTCCACTGCTCTGCAAAGGCCAACCCAGC TGTCACCCAGTACAGGGGGCCAAGCGGGGCCAGATCATCAAGGAGGCATCTGGAGAGGTGTA CAGGACCACAGTGGACTACACGTACTTCTCAGAGCCCGTCTCCTGTGAGGTGACCAACGCCCTG GGCAGCACCAACCTCAGCCGCACGGTTGACGTCTACTTTGGGCCCCGGATGACCACAGAACCC CAATCCTTGCTCGTGGATCTGGGCTCTGATGCCATCTTCAGCTGCGCCTGGACCGGCAACCCA TCCCTGACCATCGTCTGGATGAAGCGGGGCTCCGGAGTGGTCCTGAGCAATGAGAAGACCCTG ACCCTCAAATCCGTGCGCCAGGAGGACGCGGGCAAGTACGTGTGCCGGGCTGTGGTGCCCCGT GTGGGAGCCGGGGAGAGAGAGGTGACCCTGACCGTCAATGGACCCCCCATCATCTCCAGCACC CAGACCCAGCACGCCCTCCACGGCGAGAAGGGCCCAGATCAAGTGCTTCATCCGGAGCACGCCG CCGCCGGACCGCATCGCCTGGTCCTGGAAGGAGAACGTTCTGGAGTCGGGCACATCGGGGCGC TATACGGTGGAGACCATCAGCACCGAGGAGGGCGTCATCTCCACCCTGACCATCAGCAACATC GTGCGGGCCGACTTCCAGACCATCTACAACTGCACGGCCTGGAACAGCTTCGGCTCCGACACT GAGATCATCCGGCTCAAGGAGCAAGGTTCGGAAATGAAGTCGGGAGCCGGGCTGGAAGCAGAG TCTGTGCCGATGGCCGTCATCATTGGGGTGGCCGTAGGAGCTGGTGTGGCCTTCCTCGTCCTT ATCTCAGGGGGGGGACAGAAAAAGGCCAGGCTTAGGCTGCCCCGGAGAGCAAGTAAGCAG GAGTGCAATGAACAGGGGTCCTAACAGTGCTGTGAGCTCCTGGGGCAGGGAGTGGGTCTGATG CATCGGTGTATGTGAGCCTGGGCAACATGGCGCCTGGCAGAGTGGGCGCTAGGCTGAGGTTGA CCTGGACTAGACTGCATCTGCAGGGCAGCCAGCATTTTGGATTGAACACATAGCTCTT TCAGTCAGGAACTGTACAGAAAGATAGGGGGAAAAGCGGTTTGTGGTTTGATCCTTGCTCTAC AAGAGCTGTTAGTCTAGAGAGACCCCATCTCTACAACAAAATAAAAATAAAGAGCTGCTAGTC TCACCAGAAAAGCAGGTCACTCACACAGCTGTGGGGGAGTGGGGGGAAGCAATAAAGGAAT TGCTTTGAGAAAACTTAA

## FIGURE 586

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA148004

><subunit 1 of 1, 600 aa, 1 stop

><MW: 65308, pI: 8.35, NX(S/T): 5

MKPFQLDLLFVCFFLFSQELGLQKRGCCLVLGYMAKDKFRRMNEGQVYSFSQQPQDQVVV SGQPVTLLCAIPEYDGFVLWIKDGLALGVGRDLSSYPQYLVVGNHLSGEHHLKILRAELQ DDAVYECQAIQAAIRSRPARLTVLVPPDDPVILGGPVISLRAGDPLNLTCHADNAKPAAS IIWLRKGEVINGATYSKTLLRDGKRESIVSTLFISPGDVENGQSIVCRATNKAIPGGKET SVTIDIQHPPLVNLSVEPQPVLEDNVVTFHCSAKANPAVTQYRWAKRGQIIKEASGEVYR TTVDYTYFSEPVSCEVTNALGSTNLSRTVDVYFGPRMTTEPQSLLVDLGSDAIFSCAWTG NPSLTIVWMKRGSGVVLSNEKTLTLKSVRQEDAGKYVCRAVVPRVGAGEREVTLTVNGPP IISSTQTQHALHGEKGQIKCFIRSTPPPDRIAWSWKENVLESGTSGRYTVETISTEEGVI STLTISNIVRADFQTIYNCTAWNSFGSDTEIIRLKEQGSEMKSGAGLEAESVPMAVIIGV AVGAGVAFLVLMATIVAFCCARSQRSTGGRSGISGRGTEKKARLRLPRRASKQECNEQGS

## Important features of the protein:

Signal peptide:

Amino acids

1 - 17

#### Transmembrane domain:

Amino acids

534-555

### N-glycosylation sites:

Amino acids

167-171;253-257;324-328;498-502

## Glycosaminoglycan attachment sites:

Amino acids 523-527;574-578

# cAMP- and cGMP-dependent protein kinase phosphorylation sites:

Amino acids 204-208;370-374;588-592

### Tyrosine kinase phosphorylation sites:

Amino acids

40-49;300-308;389-397

#### N-myristoylation sites:

Amino acids

45-51;62-68;84-90;103-109;192-198;236-242; 374-380;436-442;478-484;539-545;543-549;

568-574

#### Amidation site:

Amino acids

202-206

#### Leucine zipper pattern:

Amino acids

8-30

## FIGURE 587

CAAAAAAGGAGCATGTCTTCATCCATGAGAGGCCTCGAAAAATCAATGGTATTTGCATTTCTC CCAAGAAGGTTGCCTAAAACCTTTCGGCCATTTTCTGCTTTCAGAGTGAGACAAAGTTCA CCACAGAGGGGTTTGTTCTTGTCACTTGTGATGACTTGAGGCCAGATAGTTTCCTTGGCTATG TTAAATAACTCAAGATCAGCTACCGAGTCTGAGATCTCTTCTCTCATGGCATTGGAGCTGGCT GTGCCTGAGGCAGACCTGGACCGTGGACATGGGGCAATGCCTTGAGCGGAAGGGGAAGCCACT GAATTTTGGGTGTCACCAGGTAAACAGAGCCCTCAGCATCTGAATAGAAACTGAACAGGAACA GAAGAGATTACACTACATCTGAGATGGAGACCTTTCCTCTGCTGCTGCTCAGCCTGGGCCTGG TTCTTGCAGAAGCATCAGAAGCACAATGAAGATAATTAAAGAAGAATTTACAGACGAAGAGA TGCAATATGACATGGCAAAAAGTGGCCAAGAAAAACAGACCATTGAGATATTAATGAACCCGA TCCTGTTAGTTAAAAATACCAGCCTCAGCATGTCCAAGGATGATATGTCTTCCACATTACTGA CATTCAGAAGTTTACATTATAATGACCCCAAGGGAAACAGTTCGGGTAATGACAAAGAGTGTT GCAATGACATGACAGTCTGGAGAAAAGTTTCAGAAGCAAACGGATCGTGCAAGTGGAGCAATA ACTTCATCCGCAGCTCCACAGAAGTGATGCGCAGGGTCCACAGGGCCCCCAGCTGCAAGTTTGTA CAGAATCCTGGCATAAGCTGTGAGAGCCTAGAACTGGAAAATACAGTGTGCCAGTTCACT ACAGGCAAACAATTCCCCAGGTGCCAATACCATAGTGTTACCTCATTAGAGAAGATATTGACA GTGCTGACAGGTCATTCTCTGATGAGCTGGTTAGTTTGTGGCTCTAAGTTGTAAATCCCACAG AGCTTTAGGACTAGGGTCTTACTAAAGAAGGACCTCTTCTTGTTCATTCTTGTTTAAACCTTT AAAAATCCAAAATTGTGGATAATTCAATTAAAAGTTATGACTGATACCG

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## FIGURE 588

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA149893</pre>

><subunit 1 of 1, 199 aa, 1 stop

><MW: 22427, pI: 6.46, NX(S/T): 3

METFPLLLISLGLVLAEASESTMKIIKEEFTDEEMQYDMAKSGQEKQTIEILMNPILLVK NTSLSMSKDDMSSTLLTFRSLHYNDPKGNSSGNDKECCNDMTVWRKVSEANGSCKWSNNF IRSSTEVMRRVHRAPSCKFVQNPGISCCESLELENTVCQFTTGKQFPRCQYHSVTSLEKI LTVLTGHSLMSWLVCGSKL

## Important features of the protein:

Signal peptide:

Amino acids 1-16

#### N-glycosylation sites:

Amino acids 61-65;89-93;111-115

## cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 105-109

### N-myristoylation sites:

Amino acids 12-18;88-94;144-150

## Microbodies C-terminal targeting signal:

Amino acids 197-201

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## FIGURE 589

CAGTCCTGCCGGGACGGTGAGCGCATTCAGCACCCTGGACAGCACCGCGGTTGCCCTCC AGGGCGCCCCGGGCTCCTCCTCCCCCAGAGCTACGCCCTCCCCCGGGTGCCCCGGACCC TGCACTTGCCGCCGCTTTCCTCGCGCTGCTCTGGACCTTGCTAGCCGGCTCTGCACCTCCCAG AAGCCGTGGGCGCCCCCCCAGCTCCCTCCATCGCCTCACTTTCCCAGGCTCGCCCCGAAGCA GAGCCATGAGAACCCCAGGGTGCCTGGCGAGCCGCTAGCGCCATG CTGGCGGGTCTCCTGGTGATGGTACTGGCCGTGGCGCTGCTATCCAACGCACTGGTGCTT TGTTGCGCCTACAGCGCTGAGCTCCGCACTCGAGCCTCAGGCGTCCTCCTGGTGAATCTGTCT CTGGGCCACCTGCTGCTGGCGCGCTGGACATGCCCTTCACGCTGCTCGGTGTGATGCGCGG CGGACACCGTCGGCGCCCGGCGCATGCCAAGTCATTGGCTTCCTGGACACCTTCCTGGCGTCC CGCTACGCCGGACGCCTGCGACCGCCTATGCCGGCCTGCTGCTGGGGTGCCTGGGGACAG TCGCTGGCCTTCTCAGGCGCTGCACTTGGCTGCTCGTGGCTTGGCTACAGCAGCGCCTTCGCG TCCTGTTCGCTGCGCCTGCCGCCCGAGCCTGAGCGTCCGCGCTTCGCAGCCTTCACCGCCACG CTCCATGCCGTGGGCTTCGTGCTGCCGCTGGCGGTGCTCTGCCTCACCTCGCTCCAGGTGCAC CGGGTGGCACGCAGACACTGCCAGCGCATGGACACCGTCACCATGAAGGCGCTCGCGCTGCTC GCCGACCTGCACCCCAGTGTGCGGCAGCGCTGCCTCATCCAGCAGAAGCGGCGCCGCCACCGC GCCACCAGGAAGATTGGCATTGCTATTGCGACCTTCCTCATCTGCTTTTGCCCCCGTATGTCATG ACCAGGCTGGCGGAGCTCGTGCCCTTCGTCACCGTGAACGCCCAGTGGGGCATCCTCAGCAAG CGCCAAGTCCTGGCCGGCATGGTGCACCGGCTGCTGAAGAGAACCCCGCGCCCAGCATCCACC CATGACAGCTCTCTGGATGTGGCCGGCATGGTGCACCAGCTGCTGAAGAGAACCCCGCGCCCA GGGCCTGGCAGGGCTCATCGCCCCCACCTTCTAAGAAGCCCTGTGGAAAGGGCACTGGCCCTG CCACAGAGATGCCACTGGGGACCCCCAGACACCAGTGGCTTGACTTTGAGCTAAGGCTGAG

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## FIGURE 590

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA149930

><subunit 1 of 1, 363 aa, 1 stop

><MW: 39332, pI: 10.42, NX(S/T): 3

MGPGEALLAGLLVMVLAVALLSNALVLLCCAYSAELRTRASGVLLVNLSLGHLLLAALDM PFTLLGVMRGRTPSAPGACQVIGFLDTFLASNAALSVAALSADQWLAVGFPLRYAGRLRP RYAGLLLGCAWGQSLAFSGAALGCSWLGYSSAFASCSLRLPPEPERPRFAAFTATLHAVG FVLPLAVLCLTSLQVHRVARRHCQRMDTVTMKALALLADLHPSVRQRCLIQQKRRRHRAT RKIGIAIATFLICFAPYVMTRLAELVPFVTVNAQWGILSKCLTYSKAVADPFTYSLLRRP FRQVLAGMVHRLLKRTPRPASTHDSSLDVAGMVHQLLKRTPRPASTHNGSVDTENDSCLQ QTH

### Important features of the protein:

Signal peptide:

Amino acids 1-24

#### Transmembrane domains:

Amino acids 46-60;85-103;130-150;175-192;246-264

#### N-glycosylation sites:

Amino acids 47-51;348-352;355-359

#### Tyrosine kinase phosphorylation site:

Amino acids

286-295

#### N-myristoylation sites:

Amino acids

66-72;124-130;128-134;132-138;139-145;244-250;

349-355

### G-protein coupled receptor proteins:

Amino acids 72-112

#### 7 transmembrane receptor (rhodopsin family):

Amino acids

22-294

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## FIGURE 591

AACATGGCTGCGCCCTGGGCTGCTCGTCTGGCTGCTCGTGCTCCGGCTGCCCTGGCGGGTG CCGGGCCAGCTGGACCCCAGCACTGGCCGGCGGTTCTCGGAGCACAAACTCTGCGCGGACGAC GAATGCAGCATGATGTACCGCGGTGAGGCTCTTGAAGATTTCACAGGCCCGGATTGTCGTTTT GTGAATTTTAAAAAAGGTGATCCTGTATATGTTTACTATAAACTGGCAAGAGGGATGGCCTGAA GTTTGGGCTGGAAGTGTTGGACGCACTTTTGGATATTTTCCAAAAGATTTAATCCAGGTAGTT GGAGGAAGAGATGATTTCATAATTATAATGTAGAAGAACTTTTAGGGTTTTTTGGAACTGTAC AATTCTGCAGCTACAGATTCTGAGAAAGCTGTAGAAAAACTTTACAGGATATGGAAAAAAAC CCTGAATTATCTAAGGAAAGGGAACCTGAACCTGAACCAGTAGAAGCCAACTCAGAGGAAAGT GATAGTGTATTCTCAGAAAACACTGAGGATCTTCAGGAACAGTTTACAACTCAGAAGCACCAC TCCCATGCAAACAGCCAAGCAAATCATGCTCAGGGAGAGCAGGCTTCATTTGAATCTTTTGAA GAAATGCTGCAAGATAAACTAAAAGTGCCAGAAAGTGAAAACAACAAAACCAGCAATAGTTCT GACTTGAAAACCAAATTTGGCTCAACAGCTGATGCACTTGTATCTGATGATGAGACAACCAGA CTCGTTACTTCATTAGAAGATGATTTTGATGAGGAATTGGATACTGAGTATTATGCAGTTGGA GAAGATATGAAAACTCCAGCAAAGTCTGGCGTTGAGAAATATCCAACAGATAAAGAGCAGAAT TCAAATGAAGAGGACAAGGTTCAGCTAACTGTGCCCCCTGGCATCAAAAATGATGATAAAAAT ATACTAACAACCTGGGGGGACACTATCTTCTCTATTGTCACAGGAGGTGAAGAAACAAGAGAT ACGATGGATTTAGAGAGCTCTAGTTCAGAGGAAGAAAAAGAAGATGATGATGATGCATTAGTC CCAGATAGCAAACAGGGGAAACCACAGTCAGCAACAGATTATAGTGACCCTGACAATGTAGAT GATGGTCTTTTTATTGTAGACATTCCTAAAACAAATAATGACAAAGAAGTAAACGCAGAACAT CACATTAAAGGAAAAGGGAGGGGGGTTCAGGAATCCAAGAGGGGCCTGGTACAAGATGAGACA GAATTAGAGGATGAAAATCAAGAAGGCTTTAAAACAGAGCCCATAAAACTA**TGA**CCTCTGAGG TTTCATTGGAAAGAAGTGTACTGTGCATTATCCATTACAGTAAAGGATTTCATTGGCTTCAA AATCCAAAAGTTTATTTTAAAAAGGTTTGTTGTTAGAACTAAGCTGCCTTGGCAGTGTGCATTT CGTCCTTACAACTTTGAAATGTGCAATAAAGAATACCTGTGTTTTTAGCTAATGTAGCATATGT AATTGCAAAATGATTTAGAATGTCATGAAAAATATGAACATTTCCTGTGGAAATGCTTTAAGA ACATGTATTTCCATTATCCTATTTTTAGTGTACACCAGCTGAATACGGAGCAATGGTGTTTAT AAGCGTTTTTTTAAACTATCTGGTCACAAAGACTGTTACGCTAAAAATGTTTACTAAAAGATC ACTAAACTATCTCCCCTCTTGCTGAAGTTCTTTGTAGTAATAGCTCATAAAAATTTGTTTATT AATATTTAAAAAAAAAAAAAA

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## FIGURE 592

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA150157

><subunit 1 of 1, 499 aa, 1 stop

><MW: 56471, pI: 4.31, NX(S/T): 2

MAAAPGLLVWLLVLRLPWRVPGQLDPSTGRRFSEHKLCADDECSMMYRGEALEDFTGPDC RFVNFKKGDPVYVYYKLARGWPEVWAGSVGRTFGYFPKDLIQVVHEYTKEELQVPTDETD FVCFDGGRDDFHNYNVEELLGFLELYNSAATDSEKAVEKTLQDMEKNPELSKEREPEPEP VEANSEESDSVFSENTEDLQEQFTTQKHHSHANSQANHAQGEQASFESFEEMLQDKLKVP ESENNKTSNSSQVSNEQDKIDAYKLLKKEMTLDLKTKFGSTADALVSDDETTRLVTSLED DFDEELDTEYYAVGKEDEENQEDFDELPLLTFTDGEDMKTPAKSGVEKYPTDKEQNSNEE DKVQLTVPPGIKNDDKNILTTWGDTIFSIVTGGEETRDTMDLESSSSEEEKEDDDDALVP DSKQGKPQSATDYSDPDNVDDGLFIVDIPKTNNDKEVNAEHHIKGKGRGVQESKRGLVQD ETELEDENQEGFKTEPIKL

### Important features of the protein:

Signal peptide:

Amino acids

1-22

#### N-glycosylation sites:

Amino acids 245-249;249-253

#### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 30-34

#### Tyrosine kinase phosphorylation site:

Amino acids 66-72

#### N-myristoylation sites:

Amino acids 392-398;469-475

#### Amidation site:

Amino acids

28-32

### Aminoacyl-transfer RNA synthetases class-II signature 1:

Amino acids

47-70

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# FIGURE 593

GGGCCAGTAGAGTGTCTGGGTCAGCTGAGTGACTACATCAAAGCTCCCAGCCTTGAAAAAC TTCTACAATGTCTGAAGAAGTGACCTACGCGACACTCACATTTCAGGATTCTGCTGGAGCAAG GAATAACCGAGATGGAAATAACCTAAGAAAAGAGGGCATCCAGCTCCATCTCCCATTTGGCG TCATGCTGCTCTGGGTCTGGTAACTCTTTGCCTGATGTTGCTGATTGGGCTGGTGACGTTGGG GATGATGTTTTTGCAGATATCTAATGACATTAACTCAGATTCAGAGAAATTGAGTCAACTTCA GAAAACCATCCAACAGCAGCAGGATAACTTATCCCAGCAACTGGGCAACTCCAACAACTTGTC CATGGAGGAGGAATTTCTCAAGTCACAGATCTCCAGTCTACTGAAGAGGCAGGAACAAATGGC CATCAAACTGTGCCAAGAGCTAATCATTCATACTTCAGACCACAGATGTAATCCATGTCCTAA GATGTGGCAATGGTACCAAAATAGTTGCTACTATTTTACAACAAATGAGGAGAAAACCTGGGC TAACAGTAGAAAGGACTGCATAGACAAGAACTCCACCCTAGTGAAGATAGACAGTTTGGAAGA AAAGGATTTTCTTATGTCACAGCCATTACTCATGTTTTCGTTCTTTTGGCTGGGATTATCATG GGACTCCTCTGGCAGAAGTTGGTTCTGGGAAGATGGCTCTGTTCCCTCTCCATCCTTGTACGT CTCTAACTAT**TGA**GGGTAAACACAAGCTTTCCATGGAATCCTGGGAAAATTAATAATGATTGT GAGAATTATAAATACAGACATAAAAAGAGGGGGTACAACATACTGAGAAAAGAGCTCCAGTAAC AAATATTGAAAGGAGATTTAGTACTAAAGAACTTGACCAGATCAATGGATCCAAAGGATGTGC TTATTTTCAAAAAGGAAATATTTATATTTCTCGCTGTAGTGCTGAAATTTTTTTGGATTTGCGA GAAGACAGCTGCCCCAGTGAAGACTGAGGATTTGGATTAGTATGCTTCTTCCAAATTCTCCAA GAAGTAAGAGACTTGTGAGTAAGCTCATATGAGGAAAGAGGAAACTACGGTACCAGAGCAAGG GCGAATTCTGCA

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# FIGURE 594

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA150163
><subunit 1 of 1, 232 aa, 1 stop
><MW: 26754, pI: 5.80, NX(S/T): 3
MSEEVTYATLTFQDSAGARNNRDGNNLRKRGHPAPSPIWRHAALGLVTLCLMLLIGLVTL
GMMFLQISNDINSDSEKLSQLQKTIQQQQDNLSQQLGNSNNLSMEEEFLKSQISSLLKRQ
EQMAIKLCQELIIHTSDHRCNPCPKMWQWYQNSCYYFTTNEEKTWANSRKDCIDKNSTLV
KIDSLEEKDFLMSQPLLMFSFFWLGLSWDSSGRSWFWEDGSVPSPSLYVSNY

Important features of the protein:

Transmembrane domain:

Amino acids 42-62

N-glycosylation sites:

Amino acids 91-95;101-105;176-180

N-myristoylation sites:

Amino acids 17-23;97-103

## FIGURE 595

CGGACGCGTGGGGAAGAGGAGGAGGAGGAAGAAGACGTGGACAAGGACCCCCATCCTACCCAG **ATG**GGGGGCTGCGAAGTCCGGGAATTTCTTTTGCAATTTGGTTTCTTCTTGCCTATGCTGACA GCGTGGCCAGGCGACTGCAGTCACGTCTCCAACAACCAAGTTGTGTTGCTTGATACAACAACT GATGAACATAATAGGCCCATTCACACATACCAGGTATGTAATGTAATGGAACCAAACCAAAAC AACTGGCTTCGTACAAACTGGATCTCCCGTGATGCAGCTCAGAAAATTTATGTGGAAATGAAA TTCACACTAAGGGATTGTAACAGCATCCCATGGGTCTTGGGGGACTTGCAAAGAAACATTTAAT CTGTTTTATATGGAATCAGATGAGTCCCACGGAATTAAATTCAAGCCAAACCAGTATACAAAG ATCGACACAATTGCTGCTGATGAGAGTTTTACCCAGATGGATTTGGGTGATCGCATCCTCAAA CTCAACACTGAAATTCGTGAGGTGGGGCCTATAGAAAGGAAAGGATTTTATCTGGCTTTTCAA GACATTGGGGCGTGCATTGCCCTGGTTTCAGTCCGTGTTTTCTACAAGAAATGCCCCTTCACT GTTCGTAACTTGGCCATGTTTCCTGATACCATTCCAAGGGTTGATTCCTCCTCTTTGGTTGAA GTACGGGGTTCTTGTGTGAAGAGTGCTGAAGAGCGTGACACTCCTAAACTGTATTGTGGAGCT GATGGAGATTGGCTGGTTCCTCTTGGAAGGTGCATCTGCAGTACAGGATATGAAGAAATTGAG  $\tt GGTTCTTGCCATGGAGCCTCCAAAGGCCGCTGCTTC\underline{\textbf{TAG}}\texttt{TTGGCCATCTT}\texttt{GGCCCCACCCCGA}$ AACAGTAACCTTTGAAGAATAAAAGAAAAAGCAAAAGAGTAGCATTACTAAAATATTAAACGG TTACATTTACAAAAAAAAAAAAAAAAAAAAAAAAAA

# FIGURE 596

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA153579
><subunit 1 of 1, 285 aa, 1 stop
><MW: 32368, pI: 5.32, NX(S/T): 0
MGGCEVREFLLQFGFFLPMLTAWPGDCSHVSNNQVVLLDTTTVLGELGWKTYPLNGWDAI
TEMDEHNRPIHTYQVCNVMEPNQNNWLRTNWISRDAAQKIYVEMKFTLRDCNSIPWVLGT
CKETFNLFYMESDESHGIKFKPNQYTKIDTIAADESFTQMDLGDRILKLNTEIREVGPIE
RKGFYLAFQDIGACIALVSVRVFYKKCPFTVRNLAMFPDTIPRVDSSSLVEVRGSCVKSA
EERDTPKLYCGADGDWLVPLGRCICSTGYEEIEGSCHGASKGRCF

Important features of the protein: Signal peptide:

Amino acids 1-22

N-myristoylation sites:

Amino acids 192-198;274-280;278-284

Receptor tyrosine kinase class V signature 1:

Amino acids 192-209

Ephrin receptor ligand binding domain:

Amino acids 34-207

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## FIGURE 597

ACACTGGCCAAACAAAAACGAAAGCACTCCGTGCTGGAAGTAGGAGGAGAGTCAGGACTCCCA CAGCACAGGGCCTCAGGCCTGGGTGCCACCTGGCACCTAGAAGATGCCTGTGCCCTGGTTCTT GCTGTCCTTGGCACTGGGCCGAAGCCCAGTGGTCCTTTCTCTGGAGAGGCTTGTGGGGCCTCA GGACGCTACCCACTGCTCCCGGGCCTCTCCTGCCGCCTCTGGGACAGTGACATACTCTGCCT CGTGCATGGGCACTGGGAAGAGCCTGAAGATGAGGAAAAGTTTGGAGGAGCAGCTGACTCAGG GGTGGAGGAGCCTAGGAATGCCTCTCTCCAGGCCCAAGTCGTGCTCTCCTTCCAGGCCTACCC TACTGCCCGCTGCGTCCTGGAGGTGCAAGTGCCTGCTGCCCTTGTGCAGTTTGGTCAGTC TGTGGGCTCTGTGGTATATGACTGCTTCGAGGCTGCCCTAGGGAGTGAGGTACGAATCTGGTC GCTCAACGTGTCAGCAGATGGTGACAACGTGCATCTGGTTCTGAATGTCTCTGAGGAGCAGCA CTTCGGCCTCTCCCTGTACTGGAATCAGGTCCAGGGCCCCCCAAAACCCCGGTGGCACAAAA CCTGACTGGACCGCAGATCATTACCTTGAACCACACAGACCTGGTTCCCTGCCTCTGTATTCA GGTGTGGCCTCTGGAACCTGACTCCGTTAGGACGAACATCTGCCCCTTCAGGGAGGACCCCCG GGACGCACCGTGCTCGCTGCCCGCAGAAGCGGCACTGTGCTGGCGGGCTCCGGGTGGGGACCC CTGCCAGCCACTGGTCCCACCGCTTTCCTGGGAGAACGTCACTGTGGACAAGGTTCTCGAGTT CCCATTGCTGAAAGGCCACCCTAACCTCTGTGTTCAGGTGAACAGCTCGGAGAAGCTGCAGCT GCAGGAGTGCTTGTGGGCTGACTCCCTGGGGCCTCTCAAAGACGATGTGCTACTGTTGGAGAC ACGAGGCCCCCAGGACAACAGATCCCTCTGTGCCTTGGAACCCAGTGGCTGTACTTCACTACC CCAGTGTCTGCAGCTATGGGACGATGACTTGGGAGCGCTATGGGCCTGCCCCATGGACAAATA CATCCACAAGCGCTGGGCCTCGTGTGGCCTGGCCTACTCTTTGCCGCTGCGCTTTCCCT CATCCTCCTTCTCAAAAAGGATCACGCGAAAGGGTGGCTGAGGCTCTTGAAACAGGACGTCCG CTCGGGGGCGCCCAGGGGCCGCGCGCTCTCCTCTACTCAGCCGATGACTCGGGTTT CGAGCGCCTGGTGGCGCCCTGGCGCCTGTGCCAGCTGCCGCTGCCCGTAGA CCTGTGGAGCCGTCGTGAACTGAGCGCGCAGGGGCCCCGTGGCTTGGTTTCACGCGCAGCGGCG CAGCGAGTGGCTACAGGATGGGGTGTCCGGGCCCGGGGCGCACGCCCCGCACGACGCCTTCCG CGCCTCGCTCAGCTGCCTGCCCGACTTCTTGCAGGGCCGGGCGCCCCGGCAGCTACGTGGG GGCCTGCTTCGACAGGCTGCTCCACCCGGACGCCGTACCCGCCCTTTTCCGCACCGTGCCCGT CTTCACACTGCCCTCCCAACTGCCAGACTTCCTGGGGGGCCCTGCAGCAGCCTCGCGCCCCGCG GGCGGGGACGTTAAATAAAGGCAGACGCTGTTTTTCTAAAAAAA

### 603/615

## FIGURE 598

></usr/seqdb2/sst/DNA/Dnaseqs.full/ss.DNA164625

><subunit 1 of 1, 705 aa, 1 stop

/><MW: 76970, pI: 6.00, NX(S/T): 9

MPVPWFLLSLALGRSPVVLSLERLVGPQDATHCSPGLSCRLWDSDILCLPGDIVPAPGP
VLAPTHLQTELVLRCQKETDCDLCLRVAVHLAVHGHWEEPEDEEKFGGAADSGVEEPRN
ASLQAQVVLSFQAYPTARCVLLEVQVPAALVQFGQSVGSVVYDCFEAALGSEVRIWSYT
QPRYEKELNHTQQLPALPWLNVSADGDNVHLVLNVSEEQHFGLSLYWNQVQGPPKPRWH
KNLTGPQIITLNHTDLVPCLCIQVWPLEPDSVRTNICPFREDPRAHQNLWQAARLRLLT
LQSWLLDAPCSLPAEAALCWRAPGGDPCQPLVPPLSWENVTVDKVLEFPLLKGHPNLCV
QVNSSEKLQLQECLWADSLGPLKDDVLLLETRGPQDNRSLCALEPSGCTSLPSKASTRA
ARLGEYLLQDLQSGQCLQLWDDDLGALWACPMDKYIHKRWALVWLACLLFAAALSLILL
LKKDHAKGWLRLLKQDVRSGAAARGRAALLLYSADDSGFERLVGALASALCQLPLRVAV
DLWSRRELSAQGPVAWFHAQRRQTLQEGGVVVLLFSPGAVALCSEWLQDGVSGPGAHGP
HDAFRASLSCVLPDFLQGRAPGSYVGACFDRLLHPDAVPALFRTVPVFTLPSQLPDFLG
ALQQPRAPRSGRLQERAEQVSRALQPALDSYFHPPGTPAPGRGVGPGAGPGAGDGT

### Important features of the protein:

Signal peptide:

Amino acids 1-20

#### Transmembrane domain:

Amino acids 453-473

#### N-glycosylation sites:

Amino acids 118-122;186-190;198-202;211-215;238-242;

248-252;334-338;357-360;391-395;

### Glycosaminoglycan attachment site:

Amino acids 583-587

### cAMP- and cGMP-dependent protein kinase phosphorylation site:

Amino acids 552-556

#### N-myristoylation sites:

Amino acids 107-113;152-158;319-325;438-444;516-522;612-618;

692-698;696-702;700-706

## FIGURE 599

GGTCCTTAATGGCAGCAGCCGCCGCTACCAAGATCCTTCTGTGCCTCCCGCTTCTGCTCCTGC TGTCCGGCTGGTCCCGGGCTGGGCGAGCCGACCCTCACTCTCTTTGCTATGACATCACCGTCA TCCCTAAGTTCAGACCTGGACCACGGTGGTGTGTGCGGTTCAAGGCCAGGTGGATGAAAAGACTT TTCTTCACTATGACTGTGGCAACAAGACAGTCACCTGTCAGTCCCCTGGGGAAGAACTAA ATGTCACAACGGCCTGGAAAGCACAGAACCCAGTACTGAGAGAGGTGGTGGACATACTTACAG AGCAACTGCGTGACATTCAGCTGGAGAATTACACACCCAAGGAACCCCTCACCCTGCAGGCAA GGATGTCTTGTGAGCAGAAAGCTGAAGGACACAGCAGTGGATCTTGGCAGTTCAGTTTCGATG GGCAGATCTTCCTCCTCTTTGACTCAGAGAAGAGAATGTGGACAACGGTTCATCCTGGAGCCA GAAAGATGAAAGAAAAGTGGGGAGAATGACAAGGTTGTGGCCATGTCCTTCCATTACTTCTCAA TGGGAGACTGTATAGGATGGCTTGAGGACTTCTTGATGGGCATGGACAGCACCCTGGAGCCAA GTGCAGGAGCACCACTCGCCATGTCCTCAGGCACAACCCAACTCAGGGCCACAGCCACCC TCATCCTTTGCTGCCTCCTCATCATCCTCCCCTGCTTCATCCTCCCTGGCATC<u>TGA</u>GGAGAGT CCTTTAGAGTGACAGGTTAAAGCTGATACCAAAAGGCTCCTGTGAGCACGGTCTTGATCAAAC TCGCCCTTCTGTCTGGCCAGCTGCCCACGACCTACGGTGTATGTCCAGTGGCCTCCAGCAGAT CATGATGACATCATGGACCCAATAGCTCATTCACTGCCTTGATTCCTTTTTGCCAACAATTTTA CCAGCAGTTATACCTAACATATTATGCAATTTTCTCTTTGGTGCTACCTGATGGAATTCCTGCA TCAAGTACTTCTTTGAATGATGATCTCTTTCTTGCAAATGATATTGTCAGTAAAATAATCACG TTAGACTTCAGACCTCTGGGGATTCTTTCCGTGTCCTGAAAGAGAATTTTTTAAATTATTTAAT AAGAAAAATTTATATTAATGATTGTTTCCTTTAGTAATTTATTGTTCTGTACTGATATTTAA ATAAAGAGTTCTATTTCCCAAAAAAAAAAAAAAAAAAA

## 605/615

## FIGURE 600

MAAAAATKILLCLPLLLLLSGWSRAGRADPHSLCYDITVIPKFRPGPRWCAVQGQVDEKTFLH YDCGNKTVTPVSPLGKKLNVTTAWKAQNPVLREVVDILTEQLRDIQLENYTPKEPLTLQARMS CEQKAEGHSSGSWQFSFDGQIFLLFDSEKRMWTTVHPGARKMKEKWENDKVVAMSFHYFSMGD CIGWLEDFLMGMDSTLEPSAGAPLAMSSGTTQLRATATTLILCCLLIILPCFILPGI

Important features: Signal peptide: amino acids 1-25

Transmembrane domain: amino acids 224-246

N-glycosylation site. amino acids 68-72, 82-86

N-myristoylation site. amino acids 200-206, 210-216

Amidation site. amino acids 77-81

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## FIGURE 601

GCAGTCAGAGACTTCCCCTGCCCCTCGCTGGGAAAGAACATTAGGAATGCCTTTTAGTGCCTT GCTTCCTGAACTAGCTCACAGTAGCCCGGCGGCCCAGGGCAATCCGACCACATTTCACTCTCA CCGCTGTAGGAATCCAGATGCAGGCCAAGTACAGCAGCACGAGGGACATGCTGGATGATGATG GGGACACCACCATGAGCCTGCATTCTCAAGCCTCTGCCACAACTCGGCATCCAGAGCCCCGGC GCACAGAGCACAGGGCTCCCTCTTCAACGTGGCGACCAGTGGCCCTGACCCTGCTGACTTTGT GCTTGGTGCTGATAGGGCTGGCAGCCCTGGGGCTTTTGTTTTTCAGTACTACCAGCTCT CCAATACTGGTCAAGACACCATTTCTCAAATGGAAGAATAGGAAATACGTCCCAAGAGT TGCAATCTCTTCAAGTCCAGAATATAAAGCTTGCAGGAAGTCTGCAGCATGTGGCTGAAAAAC TCTGTCGTGAGCTGTATAACAAAGCTGGAGCACACAGGTGCAGCCCTTGTACAGAACAATGGA AATGGCATGGAGACAATTGCTACCAGTTCTATAAAGACAGCAAAAGTTGGGAGGACTGTAAAT CCGCGTCTCAGAGCTACTCTGAGTTTTTCTACTCTTATTGGACAGGGCTTTTGCGCCCTGACA GTGGCAAGGCCTGGCTGTGGATGGATGGAACCCCTTTCACTTCTGAACTGTTCCATATTATAA TAGATGTCACCAGCCCAAGAAGCAGAGACTGTGTGGCCATCCTCAATGGGATGATCTTCTCAA AGGACTGCAAAGAATTGAAGCGTTGTGTCTGTGAGAGAAGGGCAGGAATGGTGAAGCCAGAGA GCCTCCATGTCCCCCCTGAAACATTAGGCGAAGGTGACTGATTCGCCCTCTGCAACTACAAAT AGCAGAGTGAGCCAGGCGGTGCCAAAGCAAGGGCTAGTTGAGACATTGGGAAATGGAACATAA TCAGGAAAGACTATCTCTCTGACTAGTACAAAATGGGTTCTCGTGTTTCCTGTTCAGGATCAC CAGCATTTCTGAGCTTGGGTTTATGCACGTATTTAACAGTCACAAGAAGTCTTATTTACATGC CACCAACCACCTCAGAAACCCATAATGTCATCTGCCTTCTTGGCTTAGAGATAACTTTTAGC TCTCTTTCTCTCAATGTCTAATATCACCTCCCTGTTTTCATGTCTTCCTTACACTTGGTGGA ATAAGAAACTTTTTGAAGTAGAGGAAATACATTGAGGTAACATCCTTTTCTCTGACAGTCAAG TAGTCCATCAGAAATTGGCAGTCACTTCCCAGATTGTACCAGCAAATACACAAGGAATTCTTT TTGTTTGTTTCAGTTCATACTAGTCCCTTCCCAATCCATCAGTAAAGACCCCATCTGCCTTGT CCATGCCGTTTCCCAACAGGGATGTCACTTGATATGAGAATCTCAAATCTCAATGCCTTATAA GCATTCCTTCCTGTGTCCATTAAGACTCTGATAATTGTCTCCCCTCCATAGGAATTTCTCCCA GGAAAGAAATATATCCCCATCTCCGTTTCATATCAGAACTACCGTCCCCGATATTCCCTTCAG AGAGATTAAAGACCAGAAAAAAGTGAGCCTCTTCATCTGCACCTGTAATAGTTTCAGTTCCTA TTTTCTTCCATTGACCCATATTTATACCTTTCAGGTACTGAAGATTTAATAATAATAATGTA AATACTGTGAAAAA

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# FIGURE 602

MQAKYSSTRDMLDDDGDTTMSLHSQASATTRHPEPRRTEHRAPSSTWRPVALTLLTLCLVLLI GLAALGLLFFQYYQLSNTGQDTISQMEERLGNTSQELQSLQVQNIKLAGSLQHVAEKLCRELY NKAGAHRCSPCTEQWKWHGDNCYQFYKDSKSWEDCKYFCLSENSTMLKINKQEDLEFAASQSY SEFFYSYWTGLLRPDSGKAWLWMDGTPFTSELFHIIIDVTSPRSRDCVAILNGMIFSKDCKEL KRCVCERRAGMVKPESLHVPPETLGEGD

## FIGURE 603

GGGAGAGAGATAAATAGCAGCGTGGCTTCCCTGGCTCCTCTCTGCATCCTTCCCGACCTTCC CAGCAATATGCATCTTGCACGTCTGGTCGGCTCCTGCTCCTTCTTCTGCTACTGGGGGCCCT GTCTGGATGGCCGCCAGCGATGACCCCATTGAGAAGGTCATTGAAGGGATCAACCGAGGGCT GAGCAATGCAGAGAGAGAGGTGGGCAAGGCCCTGGATGGCATCAACAGTGGAATCACGCATGC CGGAAGGGAAGTGGAGAAGGTTTTCAACGGACTTAGCAACATGGGGAGCCACACCGGCAAGGA GTTGGACAAAGGCGTCCAGGGGCTCAACCACGGCATGGACAAGGTTGCCCATGAGATCAACCA TGGTATTGGACAAGCAGGAAAGCAGAGAAGCTTGGCCATGGGGTCAACAACGCTGCTGG ACAGGCCGGGAAGGAAGCAGACAAAGCGGTCCAAGGGTTCCACACTGGGGTCCACCAGGCTGG GAAGGAAGCAGAGAAACTTGGCCAAGGGGTCAACCATGCTGCTGACCAGGCTGGAAAGGAAGT GGAGAAGCTTGGCCAAGGTGCCCACCATGCTGCTGGCCAGGCCGGGAAGGAGCTGCAGAATGC TCATAATGGGGTCAACCAAGCCAGCAAGGAGGCCAACCAGCTGCTGAATGGCAACCATCAAAG CGGATCTTCCAGCCATCAAGGAGGGGCCACAACCACGCCGTTAGCCTCTGGGGCCTCAGTCAA CACGCCTTTCATCAACCTTCCCGCCCTGTGGAGGAGCGTCGCCAACATCATGCCCTAAACTGG CATCCGGCCTTGCTGGGAGAATAATGTCGCCGTTGTCACATCAGCTGACATGACCTGGAGGGG TTGGGGGTGGGGGACAGGTTTCTGAAATCCCTGAAGGGGGTTGTACTGGGATTTGTGAATAAA CTTGATACACCA

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# FIGURE 604

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA66675

><subunit 1 of 1, 247 aa, 1 stop

><MW: 25335, pI: 7.00, NX(S/T): 0

MHLARLVGSCSLLLLLGALSGWAASDDPIEKVIEGINRGLSNAEREVGKALDGINSGITHAGR EVEKVFNGLSNMGSHTGKELDKGVQGLNHGMDKVAHEINHGIGQAGKEAEKLGHGVNNAAGQA GKEADKAVQGFHTGVHQAGKEAEKLGQGVNHAADQAGKEVEKLGQGAHHAAGQAGKELQNAHN GVNQASKEANQLLNGNHQSGSSSHQGGATTTPLASGASVNTPFINLPALWRSVANIMP

Important features of the protein:

Signal peptide:

amino acids 1-25

Homologous region to circumsporozoite (CS) repeats:

amino acids 35-225

## FIGURE 605

GCGACGCGCGGGGGGGGGGGGAGAGGAAACGCGGCGCCGGGCCCGGCCCTGGAGATGG TCCCCGGCGCGCGGGCTGTTGTCTCGTGCTCTCGGCTCCCCGCGTGCGTCGCGCCCACG GCTTCCGTATCCATGATTATTTGTACTTTCAAGTGCTGAGTCCTGGGGACATTCGATACATCT TCACAGCCACACCTGCCAAGGACTTTGGTGGTATCTTTCACACAAGGTATGAGCAGATTCACC TTGTCCCCGCTGAACCTCCAGAGGCCTGCGGGGAACTCAGCAACGGTTTCTTCATCCAGGACC AGATTGCTCTGGTGGAGAGGGGGGGGCTGCTCCTTCCTCCAAGACTCGGGTGGTCCAGGAGC ACGGCGGCGGCGGTGATCATCTCTGACAACGCAGTTGACAATGACAGCTTCTACGTGGAGA TGATCCAGGACAGTACCCAGCGCACAGCTGACATCCCCGCCCTCTTCCTGCTCGGCCGAGACG GCTACATGATCCGCCGCTCTCTGGAACAGCATGGGCTGCCATGGGCCATCATTTCCATCCCAG TCAATGTCACCAGCATCCCCACCTTTGAGCTGCTGCAACCGCCCTGGACCTTCTGGTAGAAGA GTTTGTCCCACATTCCAGCCATAAGTGACTCTGAGCTGGGAAGGGGGAAACCCAGGAATTTTGC TACTTGGAATTTGGAGATAGCATCTGGGGACAAGTGGAGCCAGGTAGAGGAAAAGGGTTTGGG CGTTGCTAGGCTGAAAGGGAAGCCACACCACTGGCCTTCCCTTCCCCAGGGCCCCCAAGGGTG TCTCATGCTACAAGAAGAGGCAAGAGACAGGCCCCAGGGCTTCTGGCTAGAACCGAAACAAA AGGAGCTGAAGGCAGGTGGCCTGAGAGCCATCTGTGACCTGTCACACTCACCTGGCTCCAGCC TCCCCTACCCAGGGTCTCTGCACAGTGACCTTCACAGCAGTTGTTGGAGTGGTTTAAAGAGCT GGTGTTTGGGGACTCAATAAACCCTCACTGACTTTTTAGCAATAAAGCTTCTCATCAGGGTTG CAAAAAAAAAAAAAAAAAAAAA

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# FIGURE 606

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA76532

><subunit 1 of 1, 188 aa, 1 stop

><MW: 21042, pI: 5.36, NX(S/T): 2

MVPGAAGWCCLVLWLPACVAAHGFRIHDYLYFQVLSPGDIRYIFTATPAKDFGGIFHTRYEQI HLVPAEPPEACGELSNGFFIQDQIALVERGGCSFLSKTRVVQEHGGRAVIISDNAVDNDSFYV EMIQDSTQRTADIPALFLLGRDGYMIRRSLEQHGLPWAIISIPVNVTSIPTFELLQPPWTFW

## Signal peptide:

amino acids 1-20

## FIGURE 607

GCATTTGCCACTGGTTGCAGATCAGGCGGACGAGGAGCCGGGAAGGCAGAGCCATGTGGCTGC GAGCCCCAGAGCAGGGTCCCTGACGGTTCAATGCCACTATAAGCAAGGATGGGAGACCTACA TTAAGTGGTGCCGAGGGGTGCGCTGGGATACATGCAAGATCCTCATTGAAACCAGAGGGT CGGAGCAAGGAGAGAGAGTGACCGTGTCCCATCAAGGACAATCAGAAAGACCGCACGTTCA CTGTGACCATGGAGGGGCTCAGGCGAGATGACGCAGATGTTTACTGGTGTGGGGATTGAAAGAA GAGGACCTGACCTTGGGACTCAAGTGAAAGTGATCGTTGACCCAGAGGGAGCGGCTTCCACAA CAGCAAGCTCACCTACCAACAGCAATATGGCAGTGTTCATCGGCTCCCACAAGAGGAACCACT ACATGCTCCTGGTATTTGTGAAGGTGCCCATCTTGCTCATCTTGGTCACTGCCATCCTCTGGT TGAAGGGGTCTCAGAGGGTCCCTGAGGAGCCAGGGGAACAGCCTATCTACATGAACTTCTCCG AACCTCTGACTAAAGACATGGCCACT**TAG**AGAGATGGATCTGCAGAGCCTTCCTGCCCTGGCC ACGTTTCCAGAAGACTCGGGCTGTGGAAGGAACATCTACGAGTCCTCGGGATGCAGTGACT GAGATAGGGGCCCTGGCCCTGGCCTTGGAGCTGGTGGGCACCTCCCTGTTCTGCAC AGCTCAGGGACTTAGCCAGGTCCTCTCCTGAGCCACCATCACCTCCTGGGGTGCCAGCACCTG TTCTCTTGGTCAGGAGCTGTAGAGATGGAGCTCAAGCACTGGACGACTCTGTCCCCACTGCTG GAATAACTCGGGCACAGAGCATGGGACCAAAGTACAGAAAGAGGTTGGGGGGAGACCCCCCAG CCCTAGACTTCCATCATTCCGGAGACCAACTCAACACCGTCTTTGCCTGAGAACCTGATATATCC GTGTTTTTAAATTTTTTTTTTTTTCTAGCAAAGTTGGGTTTTAATGACTTATGTTCATAGGAAAC CTCTCTGATCCCACACACAGGAGGGTGATTCTGGGATGAGTTCCTGGTTCTAGGGCATGAGG GGCTGGATGGACCCTGTCCCCAGGGAGGACATGGCTCTGAGTCCACAGGGCTGAGGAGGCAAT GGGAACCTCCCTGGCCCGGCCCGGTGCTTGTCCTCCCCCCCTCCCACCTCTTCCTCCTAGCT CCCCAAGCTCCCTGCCTATTCCCCCACCTCCGAGGGGCTGCAGCTTGGGAGCCTCCTCAGCAT GACAGCTTGGGTCTCCCCCAAAAGAGCCTGTCAGGCCTCAAGAACCACCTCCAGGTGGGGA TTACTAATGAAAACTGTCCTAGGGAAGTGGTTCTGTCTCCTCACAGGCTTCACCCACGGCGAT GAGGCCCTTGAATGTGGTCACTTTGTGCTGTATGGTTGAGGGACCCTCACACCAAAGGGACCT ATGTTGCCCTTTGAACACCCATGAGGACGCCTCCAACCTGCTCTTGGTTCTAATAGGGAGTAC TGACTGTCAGCAGTGGATAAAGGAGAGGGGACCCTCTGGTCCCTAGCATGGCACCCAGAGCCT CCCCTCTTCTTGTCCTTCAGCCAAAGAGAAACTTTCTCTGACTTTGAACTGAATTTAGGTCTC TCCCCTGAGTCATTCTGTGAGGGACCAAGACCCACAGTCCACCAGCCCCAGGGCCCTACCTCC TGGAATGCTTTCCTGGATCCAGCTTCCCGAAGATCCGACCAGACCCAGGGAGGACGGCACCGC TCCGCGGGAGGGAAAGCCAAAGCATGGTGCTTCACCAGCTGGACTCAGGGGGGGAGAGGGACATG GGCGCTTGTCAACGTGATGTCATTCTTTTCCCACCGTTTCTTCCTGTTGATATTCAATGAATC 

## FIGURE 608

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA105849
><subunit 1 of 1, 201 aa, 1 stop
><MW: 22689, pI: 7.41, NX(S/T): 1
MWLPPALLLISLSGCFSIQGPESVRAPEQGSLTVQCHYKQGWETYIKWWCRGVRWDTCKI
LIETRGSEQGEKSDRVSIKDNQKDRTFTVTMEGLRRDDADVYWCGIERRGPDLGTQVKVI
VDPEGAASTTASSPTNSNMAVFIGSHKRNHYMLLVFVKVPILLILVTAILWLKGSQRVPE

Important features of the protein: Signal peptide:

Amino acids 1-

Transmembrane domain:

EPGEQPIYMNFSEPLTKDMAT

Amino acids 151-170

N-glycosylation site:

Amino acids 190-194

Tyrosine kinase phosphorylation site:

Amino acids 95-103

N-myristoylation sites:

Amino acids 66-72;125-131

Prokaryotic membrane lipoprotein lipid attachment site:

Amino acids 5-16

## FIGURE 609

GATGGCGCAGCCACAGCTTCTGTGAGATTCGATTTCTCCCCAGTTCCCCTGTGGGTCTGAGGG GACCAGAAGGGTGAGCTACGTTGGCTTTCTGGAAGGGGAGGCTATATGCGCAAATTCCCCAAA CCAGGCCTTACCTGCTGGGCACTAACGGCGGAGCCAGGATGGGGACAGAATAAAGGAGCCACG ACCTGTGCCACCAACTCGCACTCAGACTCTGAACTCAGACCTGAAATCTTCTCTTCACGGGAG GCTTGGCAGTTTTTCTTACTCCTGTGGTCTCCAGATTTCAGGCCTAAGATGAAAGCCTCTAGT CTTGCCTTCAGCCTTCTCTCTGCTGCGTTTTATCTCCTATGGACTCCTTCCACTGGACTGAAG ACACTCAATTTGGGAAGCTGTGTGATCGCCACAAACCTTCAGGAAATACGAAATGGATTTTCT GAGATACGGGGCAGTGTGCAAGCCAAAGATGGAAACATTGACATCAGAATCTTAAGGAGGACT GAGTCTTTGCAAGACACAAAGCCTGCGAATCGATGCTGCCTCCTGCGCCATTTGCTAAGACTC TATCTGGACAGGGTATTTAAAAACTACCAGACCCCTGACCATTATACTCTCCGGAAGATCAGC AGCCTCGCCAATTCCTTTCTTACCATCAAGAAGGACCTCCGGCTCTCTCATGCCCACATGACA TGCCATTGTGGGGAGGAAGCAATGAAGAAATACAGCCAGATTCTGAGTCACTTTGAAAAGCTG GAGACAGAATAGGAGGAAAGTGATGCTGCTGCTAAGAATATTCGAGGTCAAGAGCTCCAGTCT TCAATACCTGCAGAGGAGGCATGACCCCAAACCACCATCTCTTTACTGTACTAGTCTTGTGCT GGTCACAGTGTATCTTATTTATGCATTACTTGCTTCCTTGCATGATTGTCTTTATGCATCCCC AATCTTAATTGAGACCATACTTGTATAAGATTTTTGTAATATCTTTCTGCTATTGGATATATT AAACTTTAAAAAAATTCACAGATTATATTTATAACCTGACTAGAGCAGGTGATGTATTTTTAT ACAGTAAAAAAAAAACCTTGTAAATTCTAGAAGAGTGGCTAGGGGGGTTATTCATTTGTAT TCAACTAAGGACATATTTACTCATGCTGATGCTCTGTGAGATATTTGAAATTGAACCAATGAC TACTTAGGATGGGTTGTGGAATAAGTTTTGATGTGGAATTGCACATCTACCTTACAATTACTG 

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## FIGURE 610

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA83500
><subunit 1 of 1, 261 aa, 1 stop
><MW: 29667, pI: 8.76, NX(S/T): 0
MRQFPKTSFDISPEMSFSIYSLQVPAVPGLTCWALTAEPGWGQNKGATTCATNSHSDSEL
RPEIFSSREAWQFFLLLWSPDFRPKMKASSLAFSLLSAAFYLLWTPSTGLKTLNLGSCVI
ATNLQEIRNGFSEIRGSVQAKDGNIDIRILRRTESLQDTKPANRCCLLRHLLRLYLDRVF
KNYQTPDHYTLRKISSLANSFLTIKKDLRLSHAHMTCHCGEEAMKKYSQILSHFEKLEPQ

Important features of the protein: Signal peptide:

Amino acids 1-42

AAVVKALGELDILLQWMEETE

cAMP- and cGMP-dependent protein kinase phosphorylation sites: Amino acids 192-196;225-229

N-myristoylation sites:

Amino acids 42-48;46-52;136-142